

CHNOLOGY DEPT.

# Chilton's MOTOR AGE

JUNE 1954

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In This Issue:

## Exclusive! Servicing Ford's OHV-V8

AR v.732 Je-N'54

**STEEL-VENT'S**

# 2-WAY ACTION

**DOES IT!**

## **1 REDUCES CYLINDER WEAR**

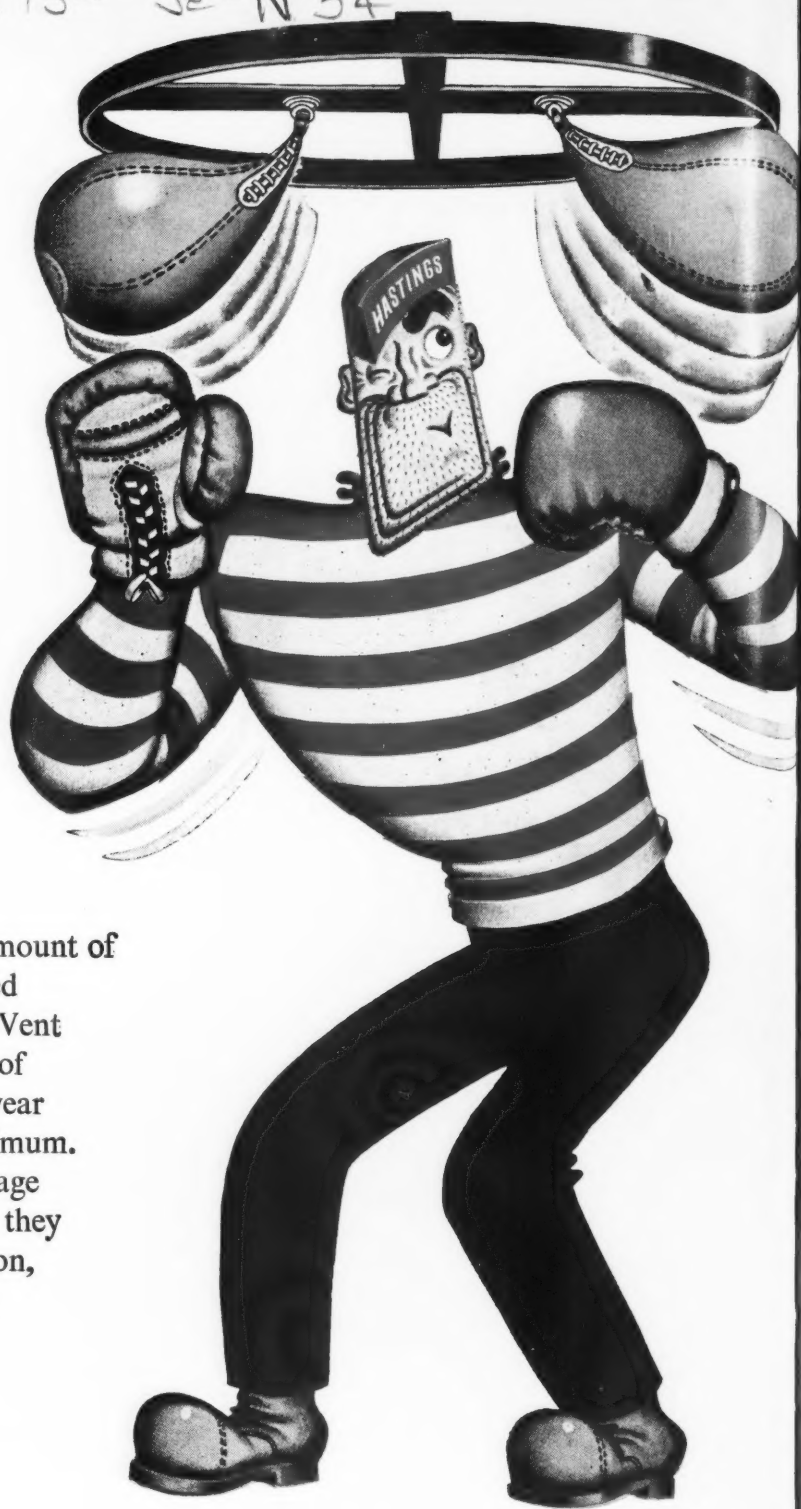
*Extra Oil-Carrying Capacity puts more oil on cylinder walls in the wear zone.*

## **2 CONTROLS OIL PUMPING**

*Extra Oil-Draining Capacity lets excess oil drain back into the crankcase.*

**Two-Way** oil control permits the right amount of oil to circulate the split-second it's needed to protect vital friction zones. The Steel-Vent is designed to meter a generous amount of lubrication up to the compression ring wear zone—holding wear to the absolute minimum. Steel-Vent design also permits fast drainage of excess oil back to the crankcase. And they can't clog—with every stroke of the piston, Steel-Vents flush away carbon deposits. You'll never see a clogged Steel-Vent. In hundreds of thousands of re-ring, re-bore and re-sleeve installations, Hastings Steel-Vent Piston Rings have proved they reduce cylinder wear and stop oil pumping.

**HASTINGS MANUFACTURING CO., HASTINGS, MICH.,** *Piston Rings, Casite, Caslube, Drout, Oil Filters, Spark Plugs*



# HASTINGS

**STEEL-VENT PISTON RINGS**

*Regular or Chrome-Faced*

**REDUCE CYLINDER WEAR • CONTROL**

*Tech*

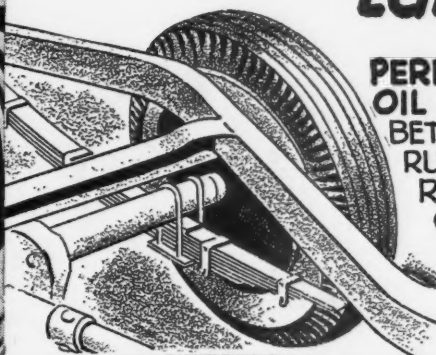
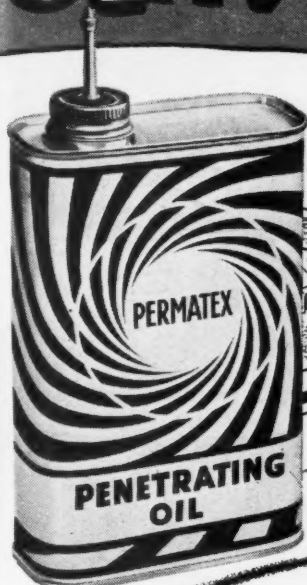


# SERVICE TIPS

FROM  
PERMATEX



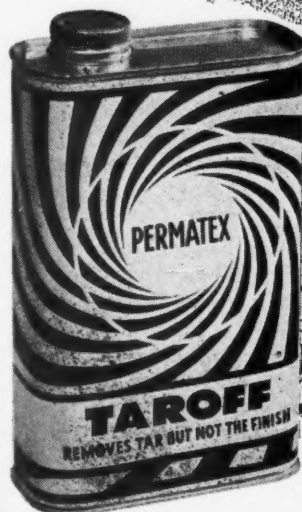
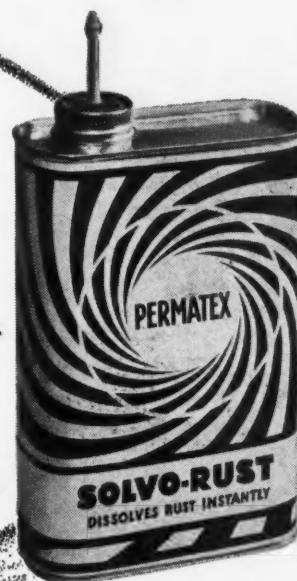
## FOR PENETRATING LUBRICATION



**PERMATEX PENETRATING OIL** PENETRATES RAPIDLY BETWEEN CLEAN, DIRTY OR RUSTED METAL SURFACES. RETAINS ITS LUBRICATING QUALITIES BECAUSE WATER DOES NOT CAUSE IT TO FLOAT OR RUN. PERFECT FOR LUBRICATING SPRINGS AND PARTS COMING IN CONTACT WITH RAIN OR MUD.

## REMOVE RUSTED MUFFLER TAIL PIPES

RUST AND CORROSION ON TAIL PIPES MAKES THEM DIFFICULT TO REMOVE. AN APPLICATION OF **PERMATEX SOLVO-RUST** DISSOLVES RUST AND CORROSION AND THE TAIL PIPE COMES FREE WITH A MINIMUM OF EFFORT. USE **SOLVO-RUST** TO DISSOLVE RUST, CORROSION, SCALE, PAINT, VARNISH, CARBON AND GUM.



## FOR ROAD TAR AND OIL SPOTS

REMOVE THESE STUBBORN SPOTS WITHOUT DAMAGE TO FINEST FINISHES WITH **PERMATEX "TAR-OFF"** THIS FAST WORKING SOLVENT REMOVES CRUSTS OF TAR, GRIT AND GRIME AND LEAVES SURFACE HARD AND DRY. WORKS QUICKER, EASIER THAN ALL-PURPOSE SOLVENTS.

### PERMATEX AUTOMOTIVE CHEMICALS

A Complete Line of Products for Automotive Service by the manufacturers of **FORM-A-GASKET No. 1**, **FORM-A-GASKET No. 2** and **AVIATION FORM-A-GASKET No. 3**.

PERMATEX COMPANY, INC., BROOKLYN 35, N. Y.

MORE THAN 50 CHEMICAL PRODUCTS FOR BETTER  
AUTOMOTIVE MAINTENANCE



# Make the Breaks Come Your Way!

Are you getting tired of having to remove broken screws, bolts and studs the *hard* way? If you own a set of PROTO screw extractors, the job is a cinch.

## HERE'S HOW—



First, drill a hole in the broken part. Second, tap in a PROTO extractor and turn out the part with a wrench.



PROTO screw extractors are available in ten drill sizes from 1/8" to 1 1/16". No. 9500A set at left includes five popular extractors.

Sounds easy, and it is. Here's why. PROTO screw extractors are deep-fluted so when they are driven into the drilled opening, they literally become part of the broken stud—even if the hole is drilled clear through. Their gradual taper prevents wedging or binding and they work equally well for right or left threads. Yes, the bad "breaks" are no problem when you use PROTO screw and pipe extractors. Get one or a complete set from your PROTO dealer. Send 10¢ for 68-page catalog to

PLUMB TOOL COMPANY

2226R Santa Fe Ave., Los Angeles 54, Calif.



Eastern Factory—Jamestown, N.Y. • Canadian Factory—London, Ont.

## NEW—the Speedy 4510 Power Stud Remover



Here is the fastest and most efficient stud remover and setter ever designed for power use. Features include a single, self-contained wedge (always ready to use), a wedge spring (speeds setting and prevents accidents), a fast reversing action, and a concentric design—far better than eccentric roller types.

# Chilton's MOTOR AGE

WITH WHICH IS COMBINED AUTOMOBILE TRADE JOURNAL

Reg. U. S. Pat. Off.

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## For THE AUTOMOTIVE SERVICE INDUSTRY

LXXIII, No. 7

June, 1954

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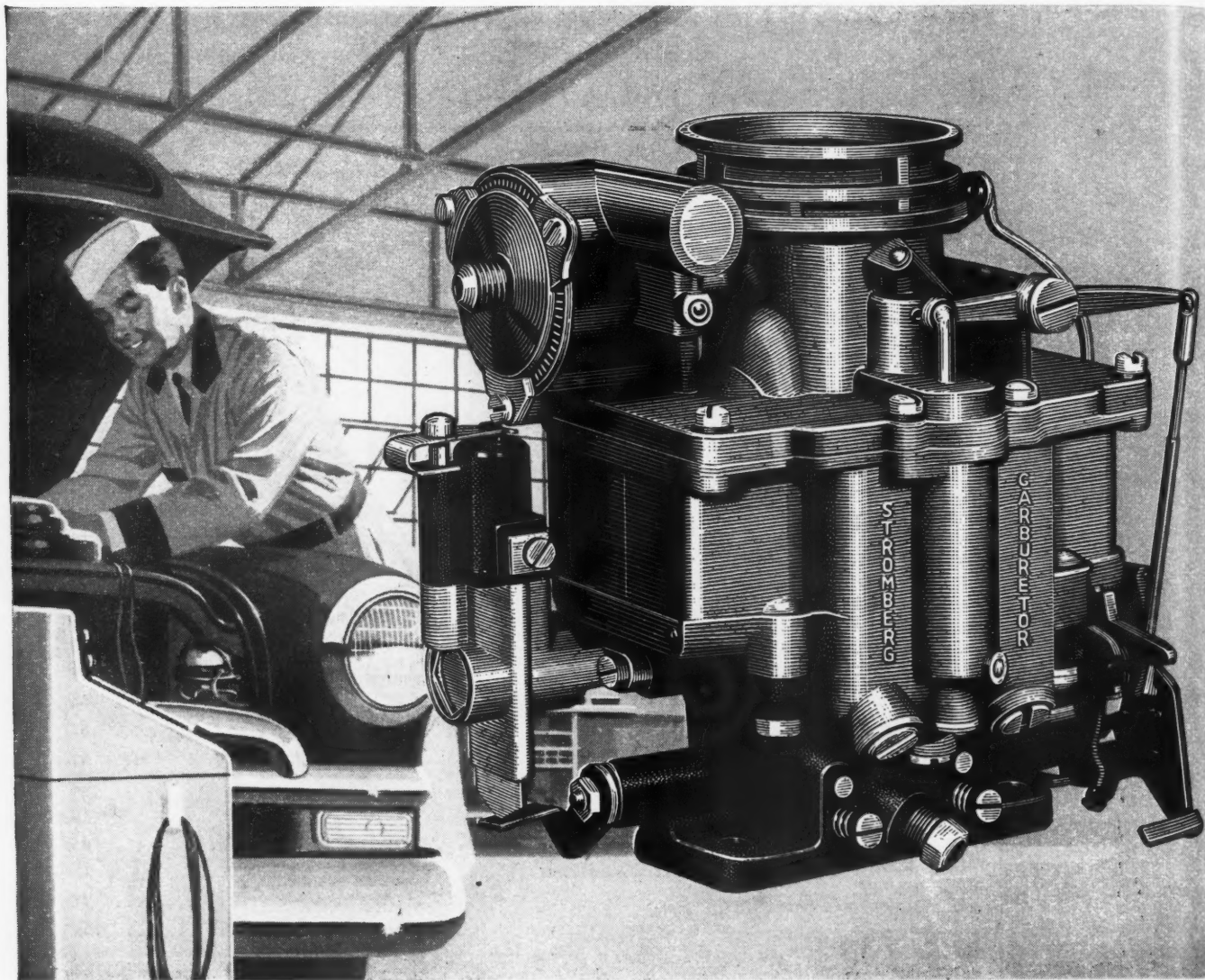
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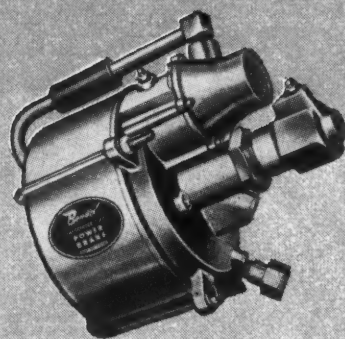
# Boost your reputation



## THE NEW *Bendix* POWER BRAKE . . . FIRST IN THE AFTERMARKET FOR ALL CARS

The big swing is to power braking. And with the new Bendix® Passenger Car Power Brake—designed and engineered to fit *all* makes of cars—you can cash in on this big, ready-made market right away! The Bendix Power Brake is

easy to sell, easy to install. Just 3 simple connections—no special tools or equipment are needed. Installation kits are complete in every detail—no extras to buy. Act now! Get the full story today from your Bendix Central Distributor.



# for Quality Tune-Ups!

## INSTALL A NEW STROMBERG CARBURETOR

### ON EVERY TUNE-UP REQUIRING MAJOR CARBURETOR SERVICE

HERE'S WHY: You can do the best tune-up job in the world but if the carburetor is worn—and you make only *temporary* repairs—you're in for trouble. More than that, your reputation is at stake. With a worn carburetor or one that has been temporarily repaired, your customer won't get the engine performance he's banking on *and paid for* from your tune-up.

#### HOW TO AVOID THIS SITUATION

Here's one *sure* way you can steer clear of this situation and, at the same time, give yourself a reputation for doing the best "tune-up jobs in town": On every tune-up that requires major carburetor service, play it safe and install a new Stromberg\* Carburetor. Then and only then will you eliminate the possibility of your customer finding fault with your work.

#### HOW TO SELL YOUR CUSTOMER A NEW STROMBERG

Explain to him that his carburetor has worn beyond peak efficiency. That temporary repairs will bring only temporary results. That a tune-up alone won't give him the top performance or gas mileage he expects. A worn carburetor can waste 20% or more of today's high-priced gasoline. This is a fact close to your customer's pocketbook. Especially when you let him know you can install a new Stromberg for *less* than the price of 60 gallons of gas and that he can expect to save that much in a couple of months of normal driving.

And here's further, positive proof of Stromberg economy: In the 1954 Mobilgas Economy Run, Stromberg-equipped cars took 1st and 2nd places in the big, over-all Sweepstakes event, and three 1st places in the divisional price-class events!

IT'S EASY TO HANDLE STROMBERG CARBURETORS: Here's what Bendix has done to make Stromberg Carburetors a major

profit item for every service station, garage and repair shop: The entire line has been streamlined and simplified. Dozens of models have been combined into a few so that now you can stock, in small space and at a *low* investment, a Stromberg for most cars or light trucks on the road today.

What's more, Stromberg gives you these exclusive advantages: **QUICK, EASY INSTALLATION**—No plumbing required, no special skill needed. You can install a Stromberg almost as quickly as you can change a battery.

**FASTER TURNOVER**—Streamlined list of models means small, low-cost, inventory for you. Your money turns over faster and brings a bigger profit.

**A BIG-PROFIT SALE**—Your profit comes from installing a unit in only a matter of minutes. You eliminate exchange problems and trade-in troubles.

\*REG. U. S. PAT. OFF.

#### SPECIAL STARTER STOCK



CHEVROLET



FORD



PLYMOUTH

Special starter stock consisting of 3 Stromberg Carburetors—Chevrolet, Ford, Plymouth—covers over 12,500,000 cars, or 1 out of every 4 cars you service. This popular, low-cost inventory assortment gives you "Big 3" coverage with minimum investment. Replace instead of repair with Stromberg!



CLEAN METAL PARTS THE SAFE,  
SURE, EASY WAY . . . USE

**Bendix METALclene**

Quickly removes dirt, grease, grime, grit, carbon from all metal parts. Has longer life, lesser evaporation rate than water, greater cleaning power and higher percentage of active ingredients. Non-toxic, non-explosive. Works at room temperature. No need for hand scraping or brushing.

STROMBERG CARBURETORS—Cars, Trucks, Industrial • BENDIX VACUUM POWER—Power Brakes—Passenger Cars, Trucks, Trailers • HYDRAULIC CONTROLS—Power Steering—Passenger Cars, Trucks, Trailers, Buses, Industrial, Agricultural • BENDIX BRAKES—Factory-New Lined Shoes, Lining Segments, Repair Parts • BENDIX\* METALCLENE—All-Purpose Parts Cleaner,

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Products  
Division**



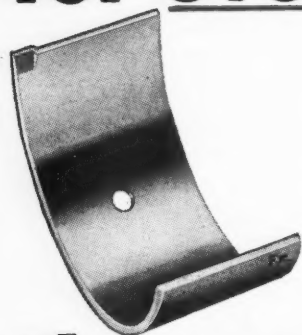
**BENDIX PRODUCTS SOUTH BEND, INDIANA**

Export Sales: Bendix International Division, 205 E. 42nd St., N.Y. 17, N.Y. Canadian Sales: Bendix-Eclipse of Canada, Ltd., Windsor, Ontario, Canada

**The**  **complete engine bearing service . . .**



**for every make and model . . .**



**old-timer or new . . . plus**

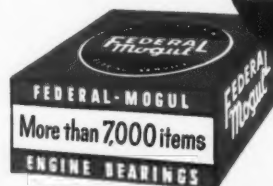
**the only**  **complete**

**connecting rod service. Ask your Federal-Mogul Jobber!**

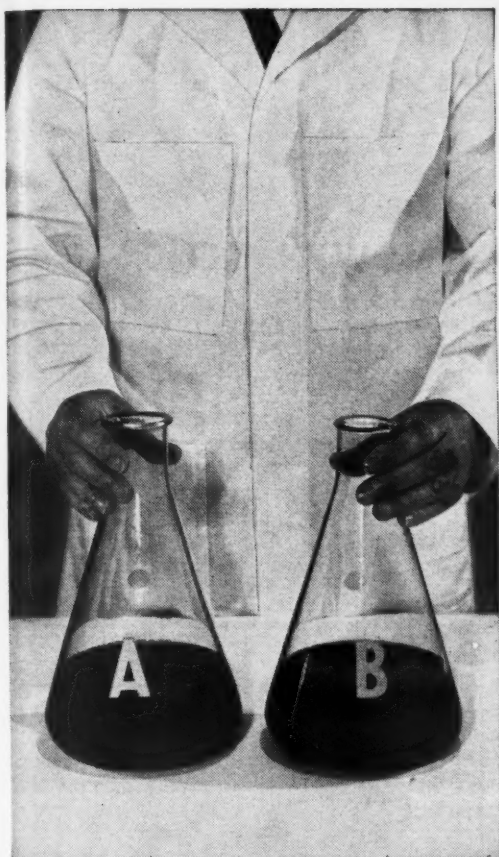
## **FEDERAL-MOGUL SERVICE**

Division Federal-Mogul Corporation  
DETROIT 13, MICHIGAN

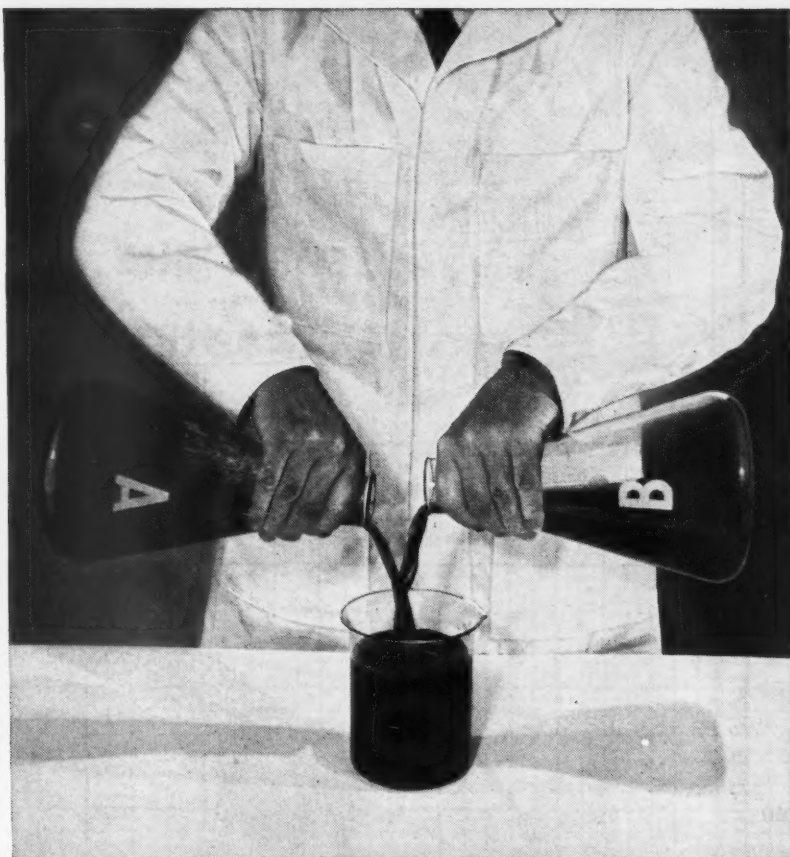
ENGINE BEARINGS (MAIN, CONNECTING ROD AND CAMSHAFT)  
• BUSHINGS • CONNECTING ROD SERVICE — EXCHANGE  
INSERT RODS, REBABBITTED RODS • CONNECTING ROD BOLTS  
AND NUTS • SHIMS AND SHIM STOCK







**WHY DO** Du Pont anti-freezes use a *chemical* (non-oily) rust inhibitor? These two pictures tell the story. Flask A contains anti-freeze with oil inhibitor. Flask B contains Du Pont anti-freeze with its exclusive chemical inhibitor. Rust particles have been added to both.



**LAB TECHNICIAN** empties flasks. Notice how oily film in A causes rust to stick to sides. Then see how Du Pont's chemical inhibitor holds particles in suspension, so they empty out with solution, leaving B clean.

# See how much cleaner Du Pont Anti-Freeze keeps a cooling system

—just another reason why Du Pont "Zerone" and "Zerex" are better for your customers.

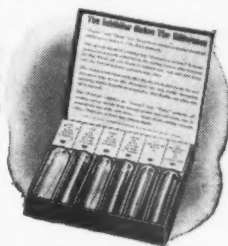
Your customers don't want a cooling system clogged with rust. That's why you should sell Du Pont anti-freeze with its exclusive chemical rust inhibitor. It protects you from customer complaints. Remember, satisfied customers mean dollars to you.

As you know, Du Pont "Zerone" and "Zerex" are the world's largest-selling anti-freeze team. They're backed by a hard-hitting campaign in national magazines, newspapers, farm papers, billboards, radio AND television...featuring sales-producing Du Pont "Anti-Freeze Week."

**YOUR DU PONT SUPPLIER** has this interesting demonstration kit. It convincingly shows how Du Pont anti-freezes keep cooling systems cleaner. Make sure you see it.



BETTER THINGS FOR BETTER LIVING  
...THROUGH CHEMISTRY



**DU PONT "ZERONE"®**  
... America's great money-saving anti-freeze value.



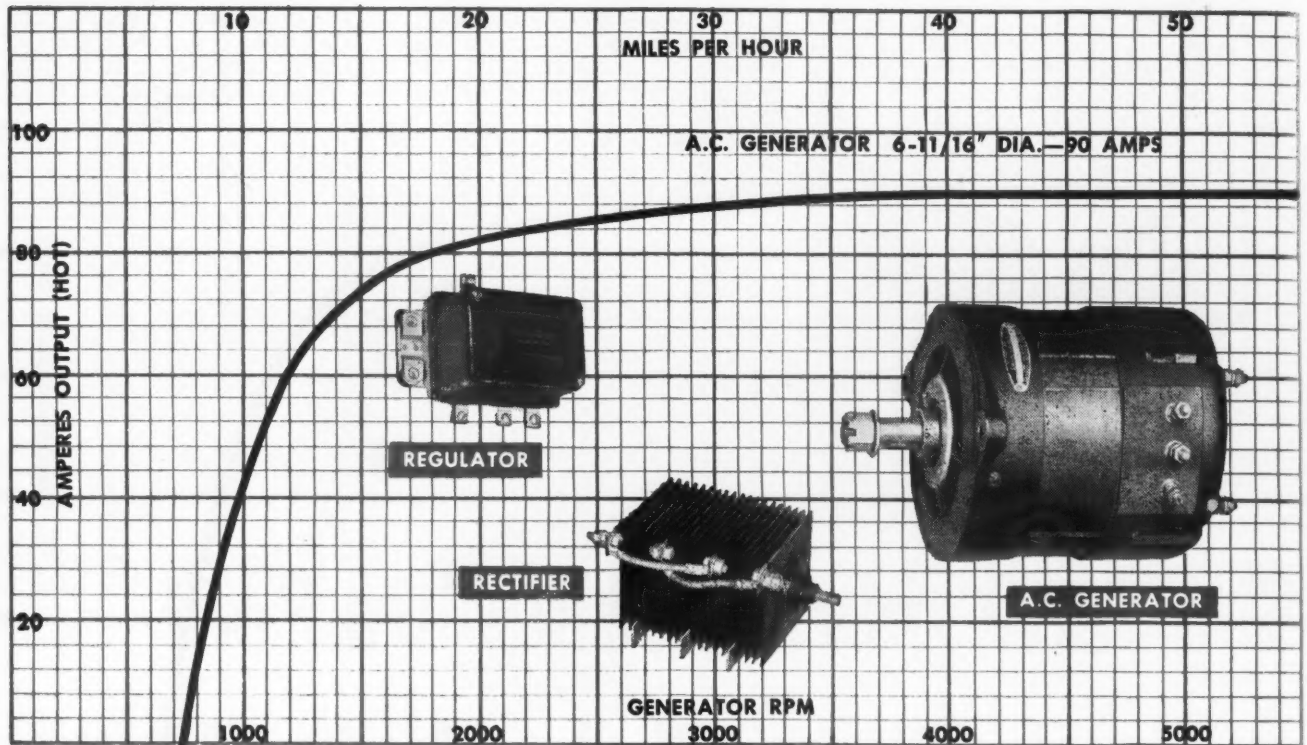
**DU PONT "ZEREX"®**  
... the outstanding one-shot, winter-long anti-freeze.

*Easy-to-recognize..  
Customer-preferred  
tamperproof cans*

# Power Packed and



HERE'S THE A.C. ANSWER TO  
EXTRA-HEAVY ELECTRICAL DEMANDS



## DELCO-REMY

### A. C. Generator, Regulator and Rectifier

Here's the answer for "problem" vehicles—Delco-Remy's new long-lived A.C.-D.C. charging system! It's specifically designed to meet the *extra-heavy* electrical demands of police prowl cars, big city taxis, and other vehicles equipped with two-way radio, floodlights or any extra electrical units . . . ample current reserve picks up discharged battery quickly in operation. Delco-Remy A.C. generators are suitable for use at all engine speeds.

With output ranging from 30-40 amperes at curb idle and up to 90 amperes at higher engine speeds,

the new Delco-Remy A.C.-D.C. charging system meets all electrical needs under the toughest operating conditions. Included in the new system is the A.C. generator, a matching regulator, and a rugged, dependable dry-plate rectifier which converts generator A.C. output to direct current.

Application packages complete with installation instruction sheets for popular makes of cars and trucks are now available. The conversion job is simple. For further details and application data, see your nearest United Motors distributor.

A GENERAL MOTORS PRODUCT  A UNITED MOTORS LINE

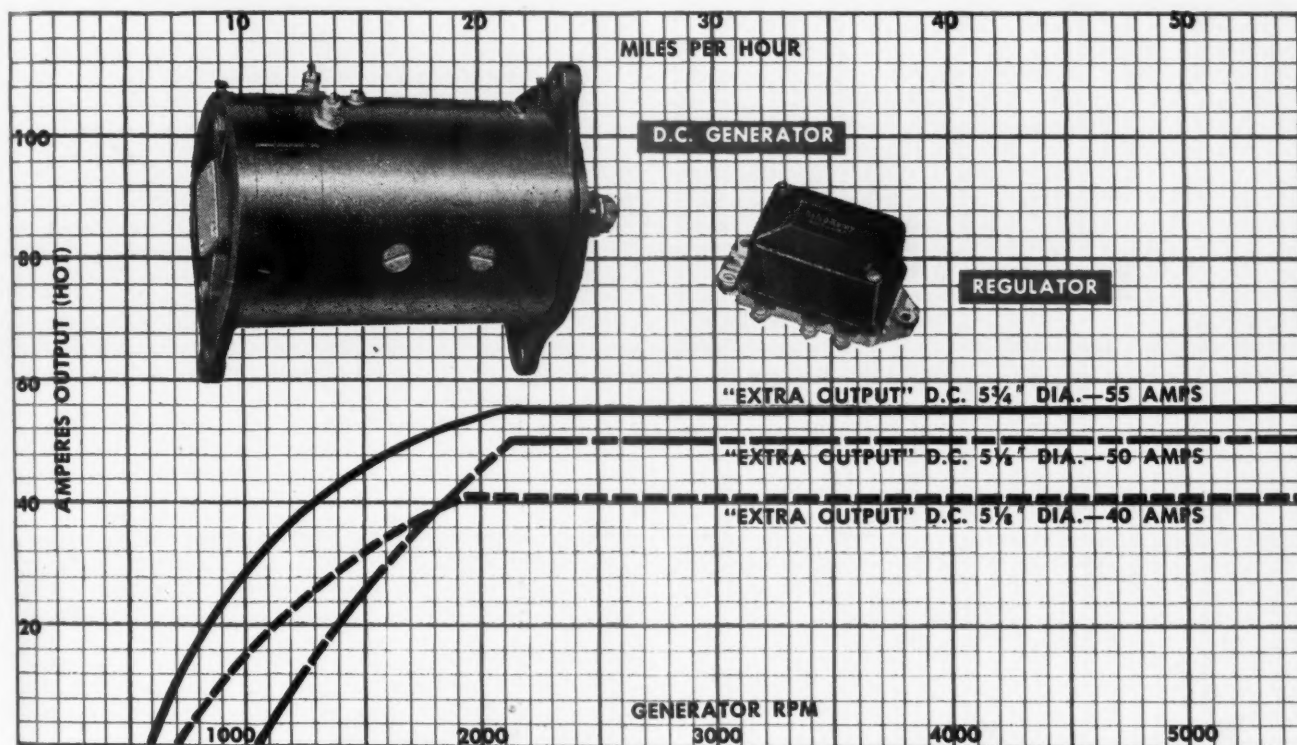
DISTRIBUTED BY WHOLESALERS EVERYWHERE

WHEREVER WHEELS TURN OR PROPELLERS SPIN

# Right for the Job



HERE'S THE D.C. ANSWER TO  
HEAVY ELECTRICAL DEMANDS



## DELCO-REMY

### Extra-Output D. C. Generators and Matching Regulators

Delco-Remy extra-output D.C. generators are an economical answer to the electrical needs of cruising taxicabs, suburban police cars, rural mail cars . . . other vehicles with additional lights, two-way radios, or other special electrical equipment in medium to heavy-duty service. Delco-Remy extra-output D.C. generators are low in cost, simple to install, economical to maintain.

DELCO-REMY 40-AMP GENERATOR, has low cut-in, about 7 mph, charges from 11 to 17 amperes at curb idle . . . full output about 18 mph—for vehicles customarily used in heavy traffic.

DELCO-REMY 50-AMP GENERATOR has slightly higher cut-in, about 11 mph . . . full output about 21 mph—for vehicles customarily operated at higher speeds, with minimum slow driving.

DELCO-REMY 55-AMP GENERATOR has very low cut-in, about 6 mph; charges at curb idle from 20 to 30 amperes . . . attains full output at 20 to 25 mph—for vehicles customarily operated at low speeds with added electrical loads, such as city taxicabs and police cars.

For further details and application data, see your nearest United Motors distributor.

## Delco-Remy

DIVISION, GENERAL MOTORS CORPORATION, ANDERSON, INDIANA

WHEREVER WHEELS TURN OR PROPELLERS SPIN

Chilton's MOTOR AGE, JUNE, 1954



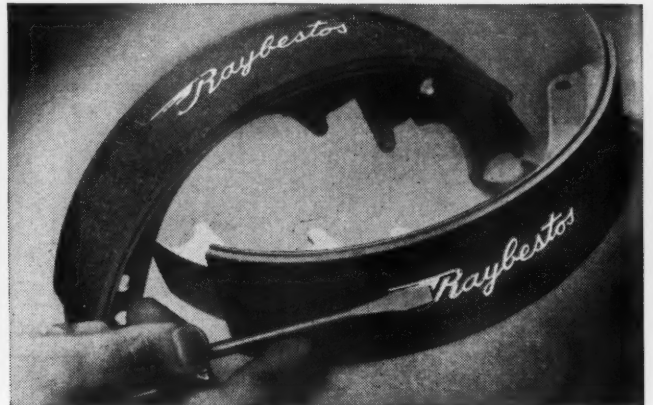
# How to make more profit servicing brakes

**You will find the questions and answers that follow well worth the time it takes you to read them**



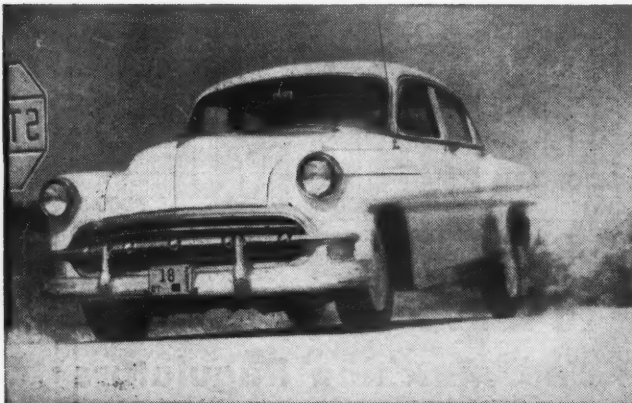
**1. "Does the manufacturer of the linings I use supply me with effective sales helps?"**

If your answer is no, you will benefit from talking to a Raybestos jobber. He'll tell you that Raybestos contract dealers are supplied by the factory with hard-hitting point-of-sale material and other action-getting sales helps month after month.



**2. "Are the linings I'm using known for their quality?"**

Unless you work with linings with a real reputation for quality—like Raybestos Proving Ground Tested Brake Linings—you risk your own name and the lives of your customers. All Raybestos linings, riveted and bonded, are branded.



**3. "Can I assure my customers that the linings I use are safe?"**

If you install Raybestos, yes. Grueling accelerated road tests and huge dynamometers test all Raybestos linings—the only linings made by seven different manufacturing processes and then factory packaged in scientifically engineered combinations for all car makes and models.



**4. "How can I increase my customers' trust in me?"**

Use the Raybestos Brake Certificate packed with all lined shoes and in all boxed sets. This written proof of safety, advertised month after month in the Post and Farm Journal, will give people extra confidence in you, help you build up all ends of your business.

*Don't let your customers learn about bad brakes by accident!*

Reline with  
**Raybestos®**  
**AMERICA'S BIGGEST SELLING BRAKE LINING**

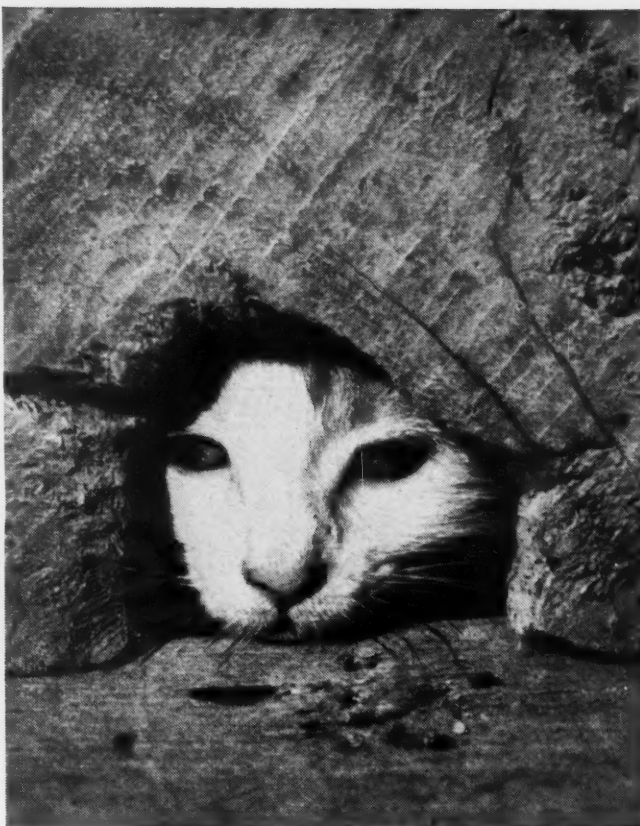


**RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.**

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Packings • Abrasive and Diamond Wheels • Bowling Balls



**1.** A customer looking around for service expects a lot from you and your organization . . .

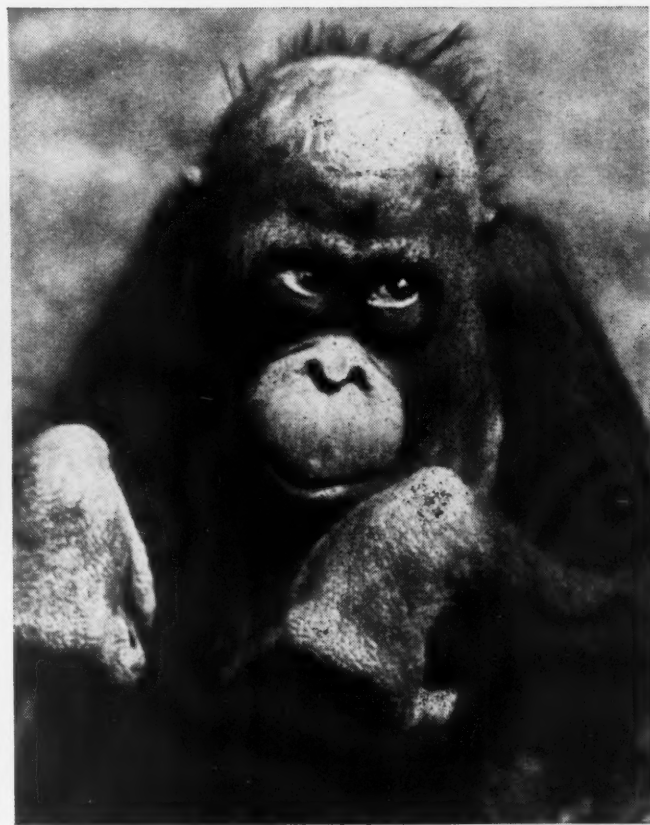


**2.** And if he doesn't get first-rate performance, you'll be on the outside looking in!



**3.** But if you want him to think your service is real cool . . .

© 1954, Ethyl Corporation, New York 17, N. Y.



**4.** Don't be shy. Tell him to use "Ethyl" gasoline and get full power from his car. (Of course, the timing should be set for "Ethyl" gasoline.)





# CAN A ROAD RACE TEACH



**YOU DON'T NEED A COMPETITION LICENSE** to enter a "Take it easy" race. Seventeen girls and boys entered the first, held in Manchester, Michigan. The winner made 20.38 miles to a gallon, which gave him the winning figure of 49.4 ton-miles.



# TEEN-AGERS SAFE DRIVING HABITS?

**"Take it easy" economy races, sponsored by Farm Journal, America's leading farm magazine, are sweeping the country. They offer the automotive industry a new public service idea.**

"Take it easy" began as an idea in a Farm Journal editorial conference when the discussion turned to interesting teen-agers in sane highway habits. The idea was a new kind of road race—like the national economy run, which takes several days and covers 1500 miles—but tailored to an event which could be run off in an afternoon. The object: to run a course with the lowest possible consumption of gas rather than in the shortest time.

Frank Reck, boys' editor of Farm Journal, took the idea back to his home town—Manchester, Michigan—and interested the school and the local Exchange Club. The first "Take it easy" race was held in Manchester late in 1952. The event was publicized in the May 1953 Farm Journal.

Reaction was immediate—and favorable. Hundreds of communities wrote in asking how to promote a "Take it easy" race. Over 60 scheduled similar events. Manchester repeated the contest in 1953, and added a new wrinkle by inviting neighboring schools and figuring out team prizes.

To obtain maximum fuel economy, a "Take it easy" race calls for studied driving techniques or habits, a careful eye on cruising speeds and a car in tip-top mechanical shape. This means precision tuning, which gives all the shops in a community a chance to strut their stuff—and to capitalize on it after the winning car gets the checkered flag.

As *Motor Service* said in a recent editorial, "Such a contest promotes good driving habits, safety and also shop volume. It's an excellent opportunity for shops to improve their public relations and increase their profits."

Would you like to sponsor a "Take it easy" race in your community? Send for the free "Take it easy" booklet—a 14-page printed piece that gives you complete details and instructions. Fill out the coupon and attach it to your business letterhead.



**WEIGHING IN** is important. Heavier cars usually have an advantage, so it's wise to divide cars into classes by weight—over 4200 pounds, between 3500 and 4200 pounds, and under 3500 pounds.



**THIS COURSE** was 109 miles, over all types of roads and through half a dozen towns. On good roads out of town, drivers had to average 40 mph in order to finish within the time limit.



*Because it is the largest farm magazine in America and goes down rural routes like a local newspaper, things usually happen when Farm Journal promotes an idea. Such is the case with "Keep 'Em Rolling." This Farm*

*Journal service has been successfully used by many jobbers and dealers to promote their own services. Right now hundreds are planning to tie in with the next "Keep 'Em Rolling" feature appearing in the July Farm Journal, which is now being mailed. You won't want to miss this business-building opportunity. Send for your free copies of the magazine—display banners—a list of the automotive products advertised in the July issue.*

## Farm Journal

America's largest, most successful farm magazine

WASHINGTON SQUARE, PHILA. 5, PA.

GRAHAM PATTERSON, PUBLISHER

### "TAKE IT EASY" FARM JOURNAL, PHILADELPHIA 5, PA.

MA6

Gentlemen: I'm very interested in the possibility of promoting a "Take it easy" road race. Please send me all the available information you have.

Name .....  
Company or organization .....  
Street .....  
City ..... Zone ..... State .....



"This  
order for  
Packard  
Cable  
is bigger  
than your  
last one."



Build up your  
business with  
the "BIG 3" in the  
cable field!

Right! Today, Packard is the preferred cable in the automotive industry—preferred by automotive engineers for original equipment on cars, trucks, buses and tractors—preferred by vehicle owners and repair shops for replacement service—preferred by jobbers and dealers for its wide *acceptance* and quick *turnover*.



**PACKARD BATTERY CABLE**—Packard battery cables are used as original equipment on more cars, trucks, buses and tractors than cables of any other make. Packard battery cables are full size, full weight . . . are available with **LEADALLOY** terminals or leaded brass terminals. Both types are packaged in individual cartons—both deliver top performance—both have acceptance, everywhere.

**FOREMOST BUILDER OF**  
**AUTOMOTIVE WIRING**

"Sure...  
it pays  
to give  
our customers  
the best—  
Packard."



**PACKARD IGNITION CABLE**—Long considered the standard of the automotive industry, Packard high-tension cable is original equipment on more cars, trucks, buses and tractors than any other cable. Packard **FOUR-FORTY** and Packard **LAC-KARD** ignition cables are designed to deliver balanced performance in every application. For dependability on the job, choose Packard!



**PACKARD LOW-TENSION CABLE**—As with Packard's two other products, Packard low-tension cable is used as original equipment on more cars, trucks, buses and tractors than cable of any other make. Packard's **249 COMPOUND** insulation, by every laboratory test and by the test of long, hard usage in the field, has exceptional resistance to heat, oil, chemicals and abrasion.

**Packard**  
REG. U.S. PAT. OFF.  
TRADE MARK

Packard Electric Division  
General Motors Corporation  
Warren, Ohio

A GENERAL MOTORS PRODUCT



A UNITED MOTORS LINE



**NOW...a truck battery that lasts  
as much as *3 TIMES LONGER!***

*The ALL-NEW*  
**Willard**  
**TRACTOR • COMMERCIAL  
BATTERY**

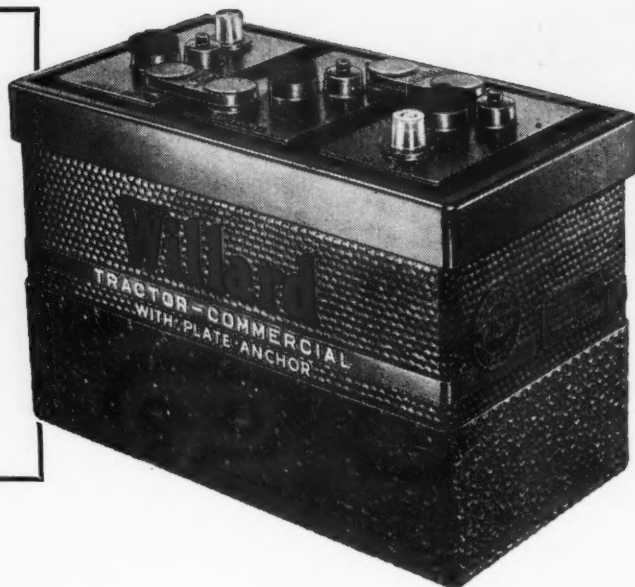


Plate Anchor is only one of many features of the great new Willard Tractor-Commercial Battery that insures longer life in heavy duty fleet service . . . greater profit for every Willard Dealer. Get the *complete* story from your nearby Willard Distributor TODAY!

*The ONLY Battery with*

**PLATE  
ANCHOR**

**a revolutionary Willard  
feature that**

- locks plates firmly in place
- defies vibration
- increases battery life by  
as much as 300%

**WILLARD STORAGE BATTERY COMPANY**

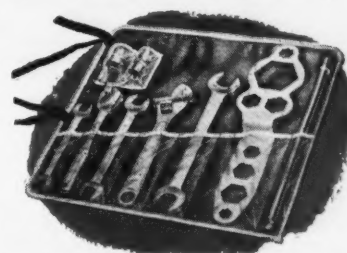
FACTORIES IN: CLEVELAND • LOS ANGELES • DALLAS • MEMPHIS • PORTLAND • ALLENTOWN • TORONTO

# PUTS YOU A STEP AHEAD

## ENGINEERED FILTRATION AT A PROFIT

### WIX PROVIDES COMPLETE COVERAGE IN OIL FILTER CARTRIDGES—PLUS THE TOOLS TO SELL THEM!

Time is Money . . . anything that enables your Shop to do more in fewer minutes is the shortest route to profits. That's why the complete WIX Line is a money-maker for you. WIX provides *complete coverage* in Oil Filter Cartridges, the outstanding Wall Chart in the industry, and the sensational, new Tool Kit . . . everything you need to make Filter servicing simple, sure and *fast*. Moreover, WIX assures the utmost in filtration, with WIXITE, the Resilient Density Filtrant for by-pass systems, and PORO-SITE, the new, pleated paper Filtrant for full-flow systems. These superior filtering media spell longer life for oil and engines, economy and satisfaction for your customers.



WIX OIL FILTER SERVICE TOOL KIT FITS ALL FILTERS, EVEN THOSE HARD-TO-GET-AT MODERN CARS.

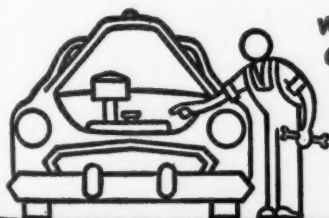
WIX FILTER IDENTIFICATION CHARTS PICTURE AND DESCRIBE ALL POPULAR FILTER MAKES AND MODELS.

wix SERVICE CHART FOR MOTOR OIL FILTERS			
<b>AC FM-9</b> Standard Service with WIX PC-721	<b>AC L-1</b> Standard Service with WIX PC-5-4	<b>AC P-10</b> Standard Service with WIX PC-127	<b>AC L-3</b> Standard Service with WIX PC-18
<b>AC S-2</b> Standard Service with WIX PC-380 or CR-30	<b>AC S-6</b> Standard Service with WIX PC-1000	<b>SUFFALO K-105</b> Standard Service with WIX PC-6-8	<b>CHRYSLER "Full-Flow"</b> Standard Service with WIX CR-2-00
<b>DELUXE JC</b> Standard Service with WIX PC-1000	<b>DELUXE CUL</b> Standard Service with WIX PC-1000	<b>DELUXE</b> Standard Service with WIX PC-1000	<b>DELUXE CR</b> Standard Service with WIX PC-1000



#### FILTER-PAX—Especially for Car Dealers

This cost-cutting Service consists of 100 lb. shipments of WIX Filters and Cartridges in standard Cartons, individually boxed and complete with fittings and instructions, sent direct to you from the WIX Factory or nearest Warehouse. Special, low FILTER-PAX Prices spell added profits for you. Get the details today.

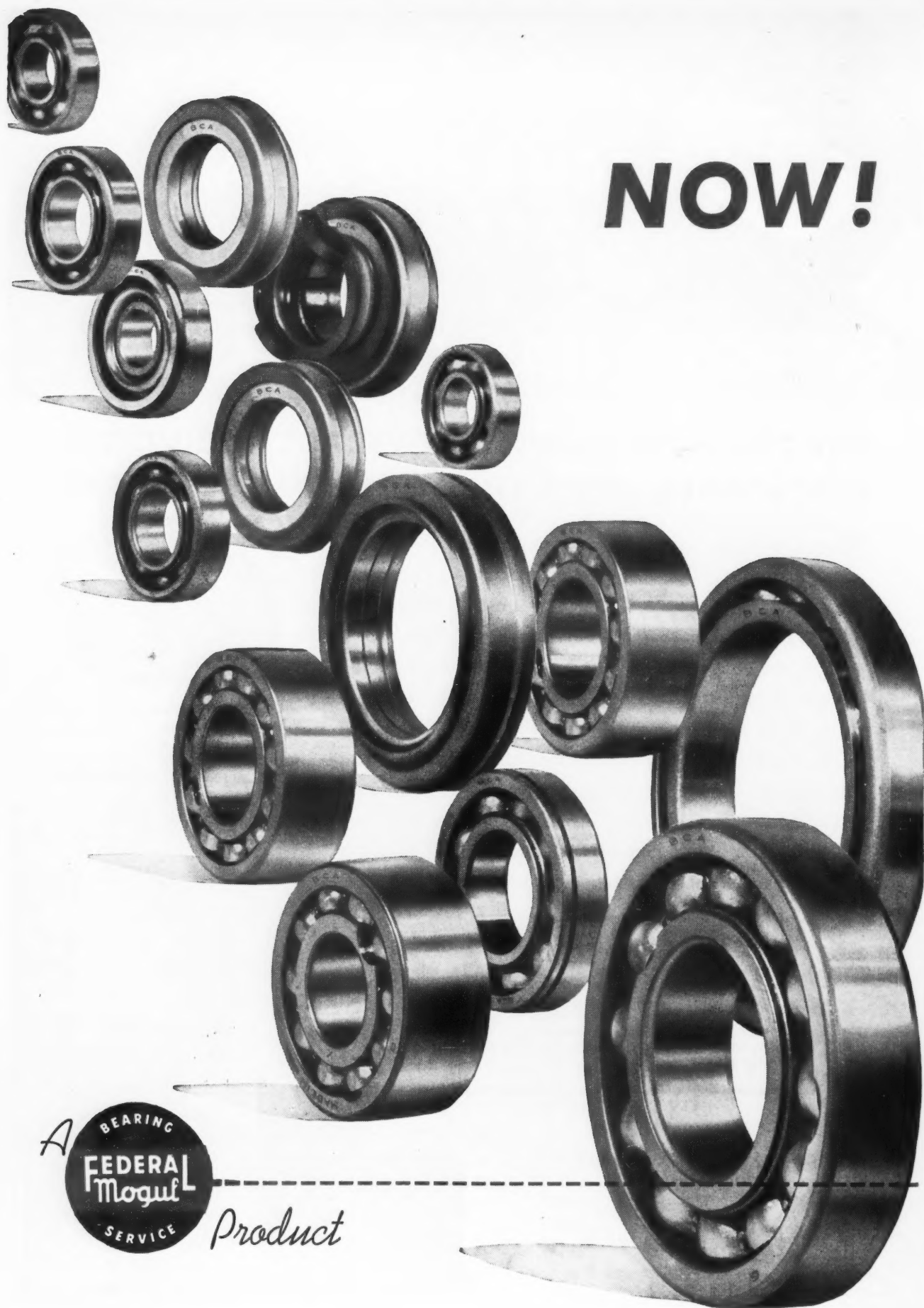


WIX GIVES ME COMPLETE COVERAGE TO SERVICE EVERY CAR THAT COMES INTO THE SHOP!



WIX CORPORATION • GASTONIA, N. C., U. S. A.

# NOW!



*Product*



# **Fast service on BCA Bearings!**

When you need ball bearings in a hurry,  
get BCA Ball Bearings for differentials,  
transmissions, clutches, wheels, and  
generators. All you have to do is

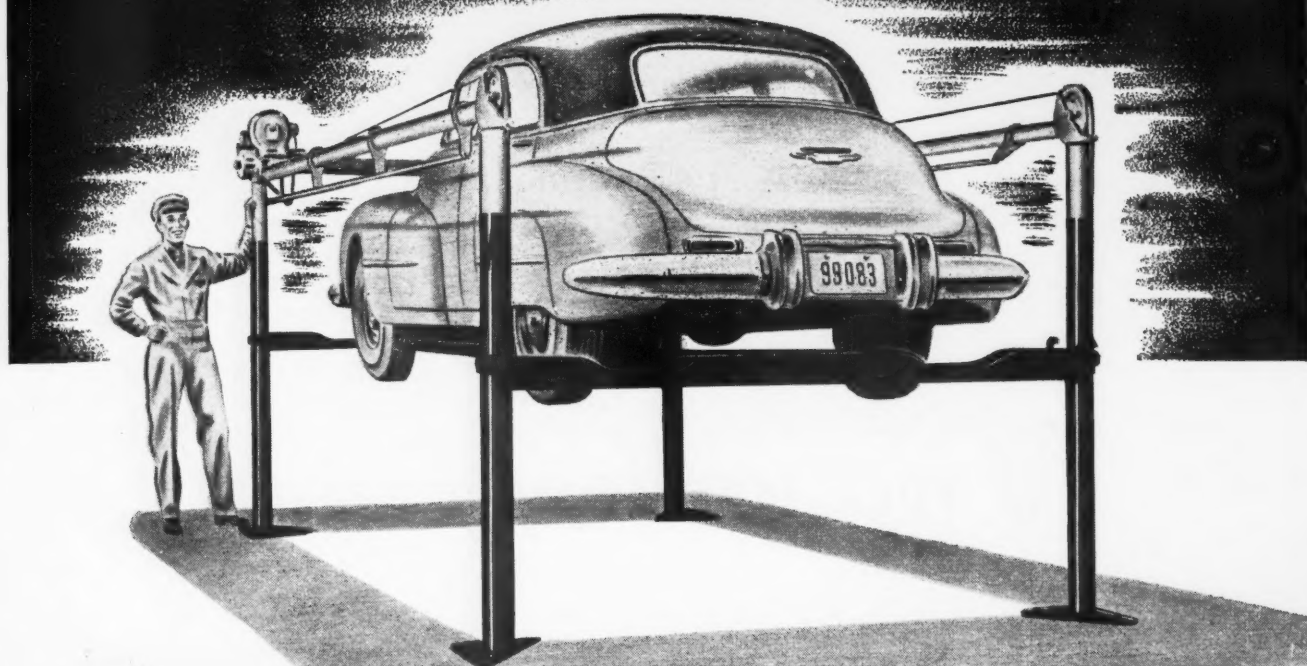
**ASK YOUR FEDERAL-MOGUL JOBBER**



---

**FEDERAL-MOGUL SERVICE**  
(Division of Federal-Mogul Corporation)  
**DETROIT 13, MICHIGAN**

# GLOBE 4-Post ELECTRIC HOIST



## Easy to install . . . easy to use—anywhere!

The Globe 4-post Electric Hoist is easily installed in just a few hours. It's just as easily moved, making it the ideal Hoist for temporary locations. What's more, the Globe 4-post Electric Hoist solves the problem of installing a Hoist on upper floors or wherever ground excavation is impractical.

### Four important features

The Globe 4-post Electric Hoist features extra-wide beam spacing for more complete under-car accessibility . . . increased lifting range for greater working height

convenience . . . improved axle block supports for easy, safe lifting of all cars . . . "Multi-Grip" drive-over ramps for easier car positioning.

### Roll-on or Free-wheel types

The Globe 4-post Electric Hoist is available in both roll-on and free-wheel types. Free-wheel Hoists are supplied with axle block supports and drive-over ramps. Capacity of both types is 7,500 pounds, and both provide clear floor space with no center obstructions.

Use  
this  
coupon  
today!

Globe Hoist Company MA-631  
E. Mermaid Lane at Queen St.  
Philadelphia 18, Pa.

Send me data on Globe 4-post Electric Hoists and  
the complete Globe line.

Name.....

Address.....

City.....Zone.....State.....

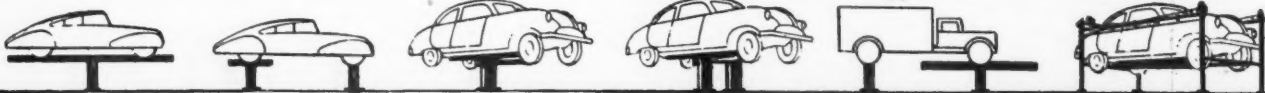
# GLOBE

THE BEST LIFT

## GLOBE HOIST COMPANY

E. Mermaid Lane at Queen St., Phila. 18, Pa.

Plants: Des Moines • Philadelphia





## BRAKE SERVICE

**"You might have killed us!** Don't you have any brakes on that car?" Here's a prospect for your service. Grey-Rock national advertising directs him to *you* for brake inspection every 5,000 miles and relining jobs when needed.



**When you're a Grey-Rock dealer,** you escape complaints and pile up profits — with Grey-Rock *balanced* linings. For the exclusive Grey-Rock *balance* principle equalizes brake wear and assures quick, safe stops. This can't be done with ordinary high and low friction materials; it's the result of Grey-Rock's using *many* different linings in combinations *engineered* for each make and model. This is a distinctive Grey-Rock feature!



**Grey-Rock also combines** distinctive woven-molded linings in balanced Braksets and Trucksets for specially severe brake requirements of certain makes and models. Where used, woven-molded combinations provide far better brake action than molded linings alone. In other sets, special molded types are used where all-molded combinations give best results. This, too, is a distinctive Grey-Rock feature.

See your Grey-Rock jobber for  
**FACTORY-BONDED  
SHOE EXCHANGE**

*It's the lining that counts*

Every piece branded for  
your protection

★

Consistently advertised in the

**POST** and **Country Gentleman**

**Only Grey-Rock makes**  
**BALANCED BRAKSET LININGS**



**GREY-ROCK DIVISION** of Raybestos-Manhattan, Inc., **MANHEIM, Pa.**  
RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings  
Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products  
Rubber Covered Equipment • Asbestos Textiles • Packings  
Abrasive and Diamond Wheels • Bowling Balls



*1 out of every 3 cars in America is*



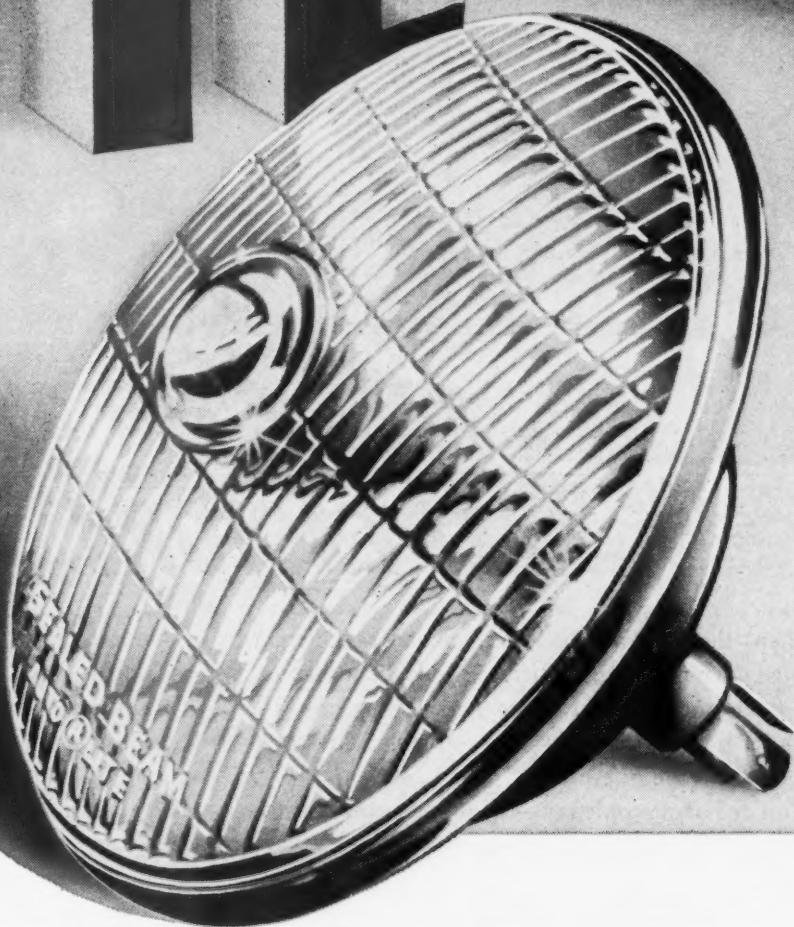
## **How world-famous Auto-Lite**

Outstanding performance of ignition engineered products in many of America's finest cars, trucks and tractors has gained for Auto-Lite world-wide customer acceptance . . . has built for you a huge, ready-made market. Leading mechanics, dealers and distributors enjoy greater opportunities for increased sales because performance built into Auto-Lite products assures car owner satisfaction. Let Auto-Lite performance pay off for you in more sales and bigger profits.

Tune in "Suspense!" . . . CBS Radio Mondays . . . CBS Television Tuesdays

*a is equipped with*

# LITE



te **products score Bull's Eye in sales**



*Bull's Eye sales hit all-time high because car owners want the lamp that won't black out!*

Auto-Lite Bull's Eye dealers report sales at an all-time high because car owners want a lamp that won't black out . . . that's guaranteed to burn even when lens is cracked or broken. The sales stimulating

exclusive Bull's Eye feature is backed by national magazines, TV and radio advertising. Profit from the complete line that includes all three — 6, 12 and 24-volt Auto-Lite Bull's Eye "Lites."

**THE ELECTRIC AUTO-LITE COMPANY • TOLEDO 1, OHIO**





**"..SURE DOES BRING OUT  
THE GO FACTOR!"**.... SAYS *Walter Shaw*

President, General Manager, Indianapolis Motor  
Speedway, 3-time winner 500 Mile Race Classic.

Perhaps the most amazing equipment I saw demonstrated during my recent visit to the Walker Silencer plant was the *Binaural Sound Recorder*—a new 3-D recorder that reproduces sound so realistically you'd swear it was the original.

You've heard people say—"I could scarcely believe my ears." Well, in studying exhaust sounds, that's exactly true. Your mind can't remember sound for comparative purposes for more than a minute. So again Walker takes no chances. The laboratory is loaded with the latest electronic analyzing equipment

—much of it they developed themselves. They take exhaust sound apart so completely you could play "Yankee Doodle" with a tail pipe. "First harmonics" ... "second harmonics" ... "come-down" ... "total noise" ... "decibels"—exhaust noises have no secrets from Walker engineers. They design a Walker Silencer "right on the button" for original equipment or replacement to eliminate any tiring noises ... or the "blat" and the "bark" that make cars sound cheap and tinny, and are so wearing on the nerves.

Now more than ever  
**WALKER** *Precision Tuned* **SILENCERS**  
make the difference



# WALKER PRECISION TUNING MEANS... QUICKER TAKE-OFF FASTER GET-AHEAD MORE PASSING POWER!

Whenever you talk with automotive engineers about a new generation engine, they always bring up its "breathing ability" . . . or the ability of that engine to take in a bigger "slug" of air fuel mixture and turn it into power. In "engineer talk" *breathing ability* means *volumetric efficiency* . . . one of the most important sources of increased horsepower.

Because the exhaust system is a basic part of any engine's "breathing system"—any unnecessary back pressure or inability to exhale *reduces* the horsepower of the engine and tends to destroy the Go-Factor originally built into the car.

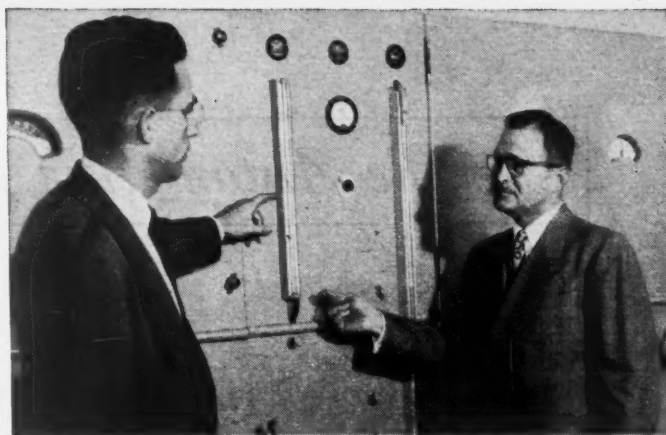
I was greatly impressed with the first rule of Walker engineering—"a Walker Silencer must quiet an engine properly without increasing its permitted back pressure." In other words, the exhaust sound must be properly controlled without lowering the established B. H. P. of the engine. This is most important—and the testing equipment Walker has developed lets them check accurately the "breathing ability" of every Walker Silencer design. It provides them with scientific data which enables them to build Walker Silencers that can and do preserve the new car quietness . . . the "traffic flash" and reserve power originally built into these vehicles.

That's what Walker means by "Precision Tuning." Each Walker Silencer for these new engines is actually a precision instrument developed specifically to solve the particular exhaust problems created by that particular engine. There can be no standardized designs. That makes sense to me because I know from experience that each engine is an individual . . . and what's good for one may be bad for another.

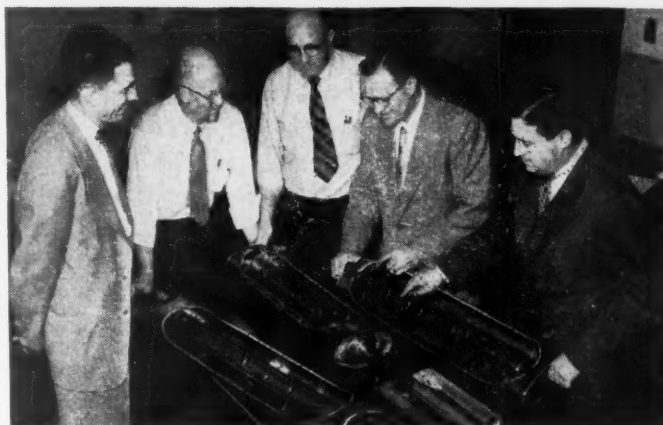


**As Advertised in  
"LIFE" and "POPULAR SCIENCE"**

WALKER MANUFACTURING CO. OF WISCONSIN • RACINE, WIS.



**WALKER'S COMPARATOR INSTRUMENT PANEL.** With a passenger car engine operating through all standard speed ranges against a controlled dynamometer load, the exhaust can be automatically directed through a new Walker design or the "test" exhaust system. On these accurate comparative back pressure instruments, I saw with my own eyes the difference a Walker Silencer can make.



**CUT-AWAY WALKER "PRECISION TUNED"** Silencers for three new high horsepower engines show the great difference in design and construction necessary to meet the particular exhaust problems of each engine. Notice the asbestos-treated shells and the fine precision workmanship. I get a real "kick" out of examining mufflers that are really worthy of these new engines.

**WHILE I AM CHECKING THE GO-FACTOR** (below)—the test car behind me is going 70 miles per hour on Walker's "dynamometer proving ground." Speed, horsepower, torque and load are being registered on the dials—and the control is all in my hands. This "proving ground" enables Walker engineers to take the guess work out of muffler design.



## *To the Automotive Industry*

# A Message from

**N**OW, the merger of the Hudson Motor Car Company and the Nash-Kelvinator Corporation is an accomplished fact.

This news is of special significance to all who today sell Hudson and Nash automobiles, Kelvinator and Leonard appliances—and who will sell them in the future.

In a broader sense, we believe it is significant news to our entire industry.

For the consolidation of these four respected names creates a new and powerful force in American industry . . . AMERICAN MOTORS, with assets of \$350,000,000 and with aggregate yearly sales of \$700,000,000.

As Divisions of AMERICAN MOTORS, each benefits by the greater strength of all, in financial resources, in facilities, in dealer organizations, and above all in the *imaginative research* that will build even greater engineering leadership for these time honored names.

Moreover, AMERICAN MOTORS provides a network of plants for most efficient production—with its own complete appliance manufacturing facilities, automobile body plants, foundries, forge shops . . . with its own engine, transmission and axle facilities—including its own plastics plant. These resources mean greater economies and finer products for the American public.

Likewise, AMERICAN MOTORS has plants in many foreign countries, contributing to world trade and the strength of the international economy.

Above all, AMERICAN MOTORS is pledged to continue leadership in value—in the fresh, new engineering concepts that set today's pattern of progress.

**Hudson and Nash are great pioneers, great innovators in the Automotive Industry.**

¶Hudson and Nash are the world's largest makers of unitized construction automobiles—the stronger, safer, *better* way to build a motor car—the one method recognized by domestic and foreign car builders

alike as the most advanced of all body construction.

¶Hudson and Nash are responsible for today's trend toward compact cars to meet current driving needs—with the Jet and the Rambler.

You see striking evidence of Hudson and Nash advanced automotive concepts in every car that bears their names.

At Hudson dealers are cars that lead all others in stock-car performance . . . the Hudson Hornet and its running mate, the Wasp. And the Hudson Jet—an outstanding compact car at an economy price.

At Nash dealers you will see the automobiles that set the pace for continental styling and ahead-of-time comfort and safety features—Ambassador, Statesman, Rambler. Here you will see America's lowest price sedan, station wagon, hard- and soft-top convertibles. And here you can find completely air conditioned cars at hundreds of dollars less than others so equipped. At Nash dealers, too, is the Metropolitan—a totally new and different kind of automobile.

**And in the American home, the names of Kelvinator, Leonard and ABC have pioneered a new way of living.**

Today, at leading appliance dealers you will find Kelvinator, Leonard and ABC products that lead in value. **Kelvinator:** refrigerators, electric ranges, home freezers, washers, dryers, ironers, room coolers, water heaters, garbage disposers, kitchen cabinets, ice cream cabinets and commercial refrigeration products. **Leonard:** refrigerators, electric ranges, home freezers. **ABC:** washers, dryers, ironers.

***To Nash, Hudson, Kelvinator,  
Leonard and ABC Owners and Dealers  
Present—and Future***

You, more than anyone else, are entitled to know these facts—

# AMERICAN MOTORS



The priceless identity of Nash, Hudson, Kelvinator and Leonard products will be preserved—as well as the sound policies behind them.

Hudson dealers will continue to sell and service Hudson automobiles. Nash dealers will continue to sell and service Nash automobiles. Kelvinator and Leonard dealers will continue to sell and service Kelvinator and Leonard products.

And this announcement of AMERICAN MOTORS adds new value to every Hudson and Nash car on the road today—to every Kelvinator, Leonard and ABC appliance in the home.

## *A Promise for the Future*

We pledge we will continue to improve our record of leadership at AMERICAN MOTORS, for we believe that our industries are still young . . . that the problems of

motorizing the world are far from final solution . . . that new horizons for better living through electrical home appliances lie ahead . . . and that to reach our goal we must, of necessity, out-think, out-engineer and out-value our competitors.

This, then, is the driving force behind the merger of Hudson and Nash-Kelvinator. You will see it reflected in our plants, in our engineering laboratories, in our dealerships and in the products that bear our honored names.

G. W. MASON  
*President and Chairman of the Board*  
AMERICAN MOTORS CORPORATION



HUDSON *Hornet, Wasp, Jet* • NASH *Ambassador, Statesman, Rambler, Metropolitan*

KELVINATOR and LEONARD *Home Appliances*





# Double Check

## ON A SLICK PAIR!



Put this pair to work in your shop today. A smooth combination all-year round, Arco Synthetic Enamel thinned with Super Adflo Reducer will give you a customer-pleasing finish with excellent build... a finish that levels out fast, *dries dust-free in ten to fifteen minutes* to a deep, lustrous gloss that will make people stop, look and admire. Double-check your want list... then call your Arco jobber today!



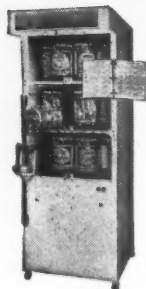
THE ARCO COMPANY

7301 Bessemer Avenue • Cleveland 27, Ohio  
5898 Central Avenue • Los Angeles 1, Calif.

QUALITY ARCO REFINISH PRODUCTS MADE BY THE ORIGINATORS OF COLOR MACHINE MERCHANDISING

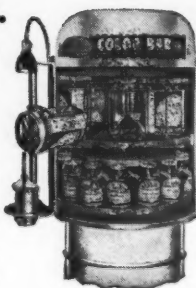
### COLOR BAR®

21 gals. of base colors. Designed for high volume refinish business. The "king" of all color machines... fits in space the size of household refrigerator, 29 inches square.



### COLOR BAR, JR.

8 gals. and 13 qts. of base colors. Built for the medium sized shop... equipped with practically all the features of the famous COLOR BAR.® The latest model in the Arco line, COLOR BAR, JR. offers high volume output. Mounted on drum or bench top.



### COLOR CADDY

4 gals. and 17 qts. of base colors. Ideal for the low or medium volume body shop where accurate matching and widest range of colors are essential. Excellent value... amazingly low investment with high profit possibilities.



**It takes all kinds of customers...**



**...but they all want the best. And when it's bearings, just tell 'em it's *TIMKEN*®!**

To keep customers coming back, let them know you use the best replacement parts. One way is to point out the trade-mark "Timken®" whenever you install a tapered roller bearing. Your customers know it stands for quality and long, trouble-free performance. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

**TIMKEN TAPERED ROLLER BEARINGS**

TRADE-MARK REG. U. S. PAT. OFF.



NOT JUST A BALL  NOT JUST A ROLLER  THE TIMKEN TAPERED ROLLER  BEARING TAKES RADIAL  AND THRUST  LOADS OR ANY COMBINATION 

# Can the cars you service stop?

A recent survey of brake fluids showed: That *one out of every three* brands tested was unsafe, and that *less than one-third* met S.A.E. heavy-duty standards. *One state has now outlawed* any brake fluid which does not meet S.A.E. heavy-duty standards, and other states may soon follow suit.

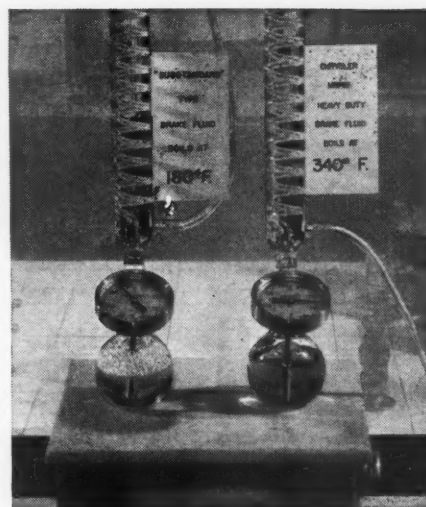
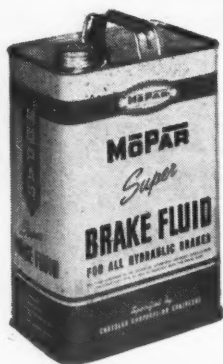
## **MOPAR Brake Fluid meets or surpasses every S.A.E. and state safety standard**

*Protect yourself and your customers.* When you service brakes, make sure that the fluid you install is S.A.E. approved. And remember, you can be *sure* with MoPar.

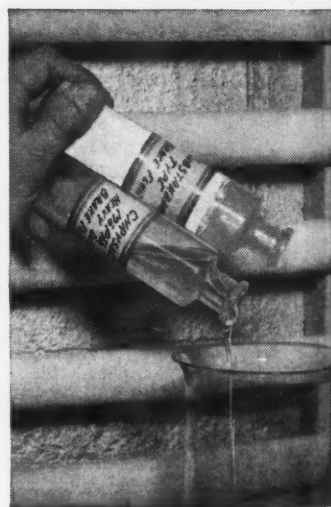
All MoPar Brake Fluid is heavy-duty . . . meets or surpasses every S.A.E. or state standard. It's the *official* brake fluid recommended by Chrysler Corporation for the heavy-duty braking systems in every Plymouth, Dodge, De Soto, and Chrysler car, and Dodge truck.

Remember, too, that the MoPar label identifies *thousands* of quality parts and accessories especially engineered for Chrysler Corporation vehicles. See your Dodge, De Soto, or Chrysler dealer, or MoPar parts wholesaler for safer brake fluid, available in eight-ounce, one-pint, one-quart, one-gallon and five-gallon containers.

# MOPAR



**Heat Test** shows a substandard brake fluid boiling at 180°F. This often causes "vaporlock", leaving brakes worthless. MoPar fluid doesn't boil until 340° . . . 40° above the minimum specified by the S.A.E. heavy-duty standard.



**Cold Test** shows substandard fluid freezes, but MoPar fluid flows freely even at 40° below zero! Thus, with MoPar fluid there's less danger of brakes becoming sluggish or slow-acting, or failing to operate at all.

**PARTS DIVISION • CHRYSLER CORPORATION  
DETROIT 31, MICHIGAN**







# His 3 tanks to fill make automotive advertising 3 times more effective in Country Gentleman!

This farmer, like millions of others across the country, operates farm machines and trucks as well as cars. To keep them running, farmers use 10 billion gallons of petroleum products yearly.

And because of the three automotive units on the farm, American farmers are also your biggest customers for tires, parts and accessories.

That is why automotive advertising is *three times more effective* in *Country Gentleman*—the most effective selling force in the great car-truck-tractor farm market!

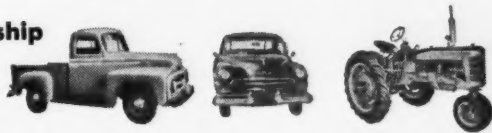
## 3-Unit Automotive Ownership

One or more cars in 9 out of 10  
*Country Gentleman* families

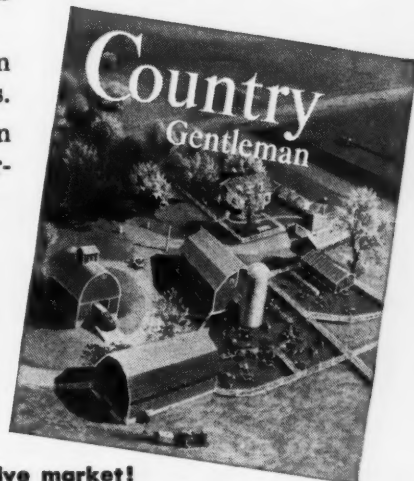
Two or more cars in 1 out of 5  
*Country Gentleman* families

One or more tractors on 7 out of 10  
*Country Gentleman* farms

One or more trucks on nearly 1 out of 2  
*Country Gentleman* farms



**Greatest selling force in  
America's greatest automotive market!**



A Curtis publication • Circulation now more than 2,600,000

Mechanics everywhere applaud

Sealed Power

# KromeX

## PISTON RING SETS

Read what  
they say:

**"237,465 miles"**

"As part of our preventive maintenance program, we recently overhauled a Mack truck in which the Sealed Power KromeX Ring Set had gone 237,465 miles. We are enclosing these rings, which you will see do not show excessive wear. From the foregoing you can see why we appreciate Sealed Power KromeX Piston Ring Sets."

George Hartstein  
Maintenance Superintendent  
Pittsburgh, Pa.

**"Results outstanding"**

"I have been using Sealed Power KromeX Ring Sets for the past two years. The results have been outstanding. A new customer recently came in with a 1948 Pontiac which had gone only 3500 miles since re-ring with another brand, and had very high oil consumption. I installed a Sealed Power KromeX Ring Set and won a regular customer."

H. S. Kamland  
Service & Parts Manager  
Louisville, Ga.

**"Very high mileage"**

"We cannot give any actual mileage record of Sealed Power KromeX Ring Sets we have installed because all of these jobs are still running perfect, even though some of them have very high mileage. Their compression-sealing and oil-controlling ability are the reason I use Sealed Power KromeX Ring Sets exclusively in my shop."

Ronie Fields  
Auto Repairing  
Springfield, Ill.

**"Not one complaint"**

"KromeX Ring Sets have been used almost exclusively in our repair jobs, and I'm happy to report that we have had not one complaint on any KromeX installation. About 90 days ago we installed a KromeX set in a 1949 Cadillac, and our customer reports that his car is running smoother than ever before and he is very happy."

Clyde Morton  
Manager, Automotive Dept.  
Tulsa, Okla.

Factory seated  
for fast break-in!

28 leading engine builders use Sealed Power Chrome Rings

SEALED POWER CORPORATION, MUSKEGON, MICHIGAN

# Sealed Power Piston Rings

BEST IN NEW CARS!

BEST IN OLD CARS!

Sealed Power Motor Parts—The Heart of the Engine • Rings, Pistons, Pins, Sleeves, Valves, Water Pumps



# Newscoop

## "I Cover the Autofront" .....by Len Westrate

### Chrysler to Replace Air-Conditioning

CHRYSLER REPORTEDLY WILL REPLACE its present airconditioning unit with a substantially improved version on 1955 models. It is said to be more compact and less costly. The company also has another unit in the works for the future. This latter unit will have all the mechanism located under the hood with no trunk space utilized.

### Nash-Hudson Parts to be Consolidated

PARTS AND ACCESSORIES WAREHOUSE facilities of Nash and Hudson will be among the first departments to be consolidated under the newly formed American Motors Corp. The two divisions reportedly are studying the most feasible plan--expect to have this department integrated within the next 60 days.

IT IS REPORTED that GM is looking at ball joint suspension, particularly for Chevrolet, next year. It is not known whether it would be the Thompson Products development or something similar in nature.

ALL INDICATIONS POINT to a continuation of the upward trend in engine horsepowers next year. Four new engines--Chevrolet, Pontiac, Plymouth and Packard, are scheduled and all certainly will have much more power than their predecessors. We hear that other makers also are planning to increase output on the order of 10 to 20 horsepower or so with the top limit to be 250 hp.

### HP Continues Upward Trend Next Year

STYLING AND DESIGN FEATURES of automobiles are expected to get more play in the immediate future than are mechanical developments. Some basic changes in door design, passenger seating arrangement, and interesting treatment of top design for greater visibility and perhaps elimination of the center pillar are getting considerable attention. Some type of sliding door may be developed to eliminate interference at the curb. Fixtures for pivoting individual seats in some models may be on the way. Relocation of seats, with the driver forward and center also is under study.



**Nomad on  
Corvette  
Chassis**

SPECULATION IN DETROIT is that Chevrolet may produce its Nomad station wagon built on a Corvette chassis as a limited production item. The vehicle currently is built in plastic and has been shown at the GM Motorama and automobile shows around the country, getting very favorable comment. Whether it would be built in plastic or steel is not clear.

PACKARD IS WORKING on an improved version of its Ultramatic transmission. Details of the changes are not known. It is expected that it will be ready for introduction on 1955 models.

BOTH DODGE AND PLYMOUTH are expected to switch over to Chrysler's new coaxial power steering on 1955 models. Chrysler is building the unit itself at the Trenton plant. The coaxial unit is much more compact and has fewer parts than its predecessor. Both are integral type gears.

**Union Members  
Invest in  
Willys**

WILLYS MOTORS UNION MEMBERS may go into the business of selling their employer's products. The Willys unit of UAW-CIO Local 12 at Toledo has voted to invest about \$300,000 in a new company which has asked permission to take over the Ohio wholesale distributorship for Kaiser and Willys cars. Toledo businessmen would invest the balance of the \$1 million capitalization. Kaiser Motors, Inc., is studying the request for the franchise but has not made any decision on the proposal.

THE CURRENT UPHEAVAL in the automobile industry which sees many new car dealers going out of business again points up the importance of the independent repair shop to car manufacturers and their customers. Some companies have found themselves temporarily without dealers in some points, or with the number greatly reduced, and the established repair shops have been important in providing service for the manufacturers' products.

**New Car  
Freight Rates**

THERE IS SOME EVIDENCE that dealers may kick up quite a fuss over new car freight rate differentials based on F.O.B. pricing practices. Dealers at points remote from Detroit claim that freight charges from Detroit, even though the car might be built in a local assembly plant, artificially raise the price, make it easy for bootleggers to import competition. NADA apparently is ready to jump in with a demand for uniform freight charges throughout the country. Manufacturers certainly will oppose such a demand on the basis of cost of establishing assembly plants at distant points and shipping materials to them. So-called "phantom freight" certainly will be a live issue in the months ahead.

NADA IS RELUCTANT TO GIVE DETAILS about its anti-bootlegging proposal handed to the Justice Department. However, it requests permission to reinstate in new car franchises an anti-bootleg clause that defines the dealer strictly as a retailer with penalties for violators. NADA specifically asks that if such clauses are inserted criminal liability be waived with respect to both manufacturer and dealers. Legislation undoubtedly will be introduced in Congress to make the bootleg clause legal as part of the anti-trust laws. Incidentally, there seems little chance that territory protection clauses will come back into new car franchises.

**Damage Suit  
by Hudson  
Dealers**

OUTCOME OF A MULTI-MILLION DOLLAR DAMAGE SUIT filed by 15 Chicago Hudson dealers against a fellow dealer could be significant. Plaintiffs charge Courtesy Motor Sales, Inc., and Jim Moran, its president, with violating Robinson-Patman and Sherman anti-trust laws on quantity discounts and advertising allowances from Hudson Motor Car Co. Significantly, neither Hudson nor its parent American Motors, Inc., are named defendants.

THE DEALERS CHARGE Courtesy Motors wangled discounts of \$72 to \$90 from Hudson on a basis not available to other dealers. Also they say Courtesy was exempted from the \$30 per car joint advertising charge which other dealers pay.

## Problems or Opportunities

AN AMUSING STORY deals with a Detroit meeting of factory officials and dealers of a line having considerable sales difficulty. After four or five dealers had wailed at the wall about their problems, a factory official gave an inspirational pep talk. He told the dealers, "These are not problems, but opportunities." At the conclusion of his speech one dealer rose to his feet and told his colleagues, "Gentlemen, in our dealership we are faced with insurmountable opportunities."

AGGRESSIVE SELLING will be needed for the remainder of the year to avoid any sizeable cuts in production, which is pushing the industry toward its third best year in history. While production of cars through the middle of May continued to trail last year's level by about 8 per cent, with approximately 2.3 million units turned out, sales at the beginning of May were about 6 per cent below the year ago figure, thus failing to bring the traditional improvement which the industry expects during warm weather. Total sales for the first five months of this year were also under the same period last year. Used car sales, on the other hand, continued to climb. Inventories on May 1 were down 3 per cent compared with the same period last year, while sales in April were up about 2 per cent over the same month in 1953.

## Plastics—the Subject in Cleveland

AS WE GO TO PRESS, a special automotive session of the Annual Plastics Conference is taking place in conjunction with the 1954 National Plastics Exposition. The Exposition, sponsored by the Society of the Plastics Industry, Inc., is being held June 7-10 in Cleveland, Ohio.

SPEAKING ON "REINFORCED PLASTICS TOOLING" is Fred Lyijynen, Automotive Body division of Chrysler Corp. John G. Coffin, Chevrolet, is discussing "The Corvette Plastics Body." "Cast Dies" is the subject being covered by R. H. Voss, Warren Plastics and Engineering, Inc. George M. Rice, Ren-ite Plastics, Inc., is talking on "Epoxy Plastic Dies, Die Models, Checking Fixtures and Tooling."

## European Tourist Gyp

SOME EUROPEAN CAR DEALERS are reported to be using a new gyp tactic on tourists buying cars for temporary use. The practice employed is a "buy back" plan, a verbal promise by the dealer that he will repurchase the vehicle before the buyer leaves the country. The "buy back" price, however, is not specified in the contract, and the buyer is misled by the wording "current market price." The "Current" market price usually drops at the end of a season and government regulations delay repayments.

THE TINTED WINDOW CONTROVERSY has popped up again. Recent stories in medical journals claiming such glass on automobiles reduces visibility by as much as 30 per cent were refuted by Chrysler engineers, who conducted another study of the subject. Car companies have maintained that tinted windows improve vision because the eyes are not subject to as much glare during daytime as they are with ordinary glass. In the latest study, Chrysler found that it takes several hours to restore normal acuity in darkness after the eyes are exposed to the sun for any length of time.

## Steady Sales Pace Expected

ALTHOUGH APRIL AND MAY FAILED to bring the traditional improvement in car sales and stocks remained at high levels, dealers are viewing the coming months with optimism. Sales, which were down at the end of May about 6 per cent under last year, are expected to pick up this month and continue at a steady pace during the remainder of the year. A rise in production, which slipped last month despite stepped-up schedules by some makers, also was expected this month. Car output for the first five months was still trailing last year's rate, with about 2½ million units turned out.

# Washington Wire .....by Ray M. Stroupe

## "Slow Down and Live"

SAFE DRIVERS IN SAFE CARS are in special demand in 24 states, reaching from Maine to Texas. Their governors are backing a "Slow Down and Live" campaign that will run until Labor Day. The idea is to reduce accidents, not to heckle motorists with a king-sized traffic trap.

TOTAL NUMBERS OF CARS, trucks, and buses registered in the U. S. last year was 56.2 million. Included were more than 46 million passenger cars and 10 million trucks and buses. Twenty states reported more than a million vehicles registered. The gain over 1952 was better than 3 million.

PUBLIC GARAGES have a new federal grant for use of two radio frequencies on an exclusive basis. These two, 35.70 and 35.98 megacycles, may speed up the direction of tow-truck operations and other out-of-shop work.

## Central Motor Pools for U. S. Vehicles

STRONGER GOVERNMENT SUPPORT is seen for a plan to operate U. S. owned vehicles from central motor pools in many cities. Recent estimates of the amount these pools would save run from \$5 million to \$10 million a year. Congress must act before the pools can be created.

NEW FEDERAL-AID HIGHWAY LAW means more than the spending of nearly \$2 billion over a 24-month stretch. Better roads will open the way to more vehicle servicing by encouraging both workday and weekend driving. New building sites also can be reached more easily by the businessman and his customers.

## Employment and Sales Rise

NEW AUTO SALES, rising in February and March, showed a further gain in April. Sales of most other goods improved also, the Federal Reserve Board says. Unemployment was down for the first time since last fall because the weather over much of the country became mild enough for more outdoor work to begin.

MOTOR VEHICLE USERS were hit with more than \$2.1 billion in taxes by the states and District of Columbia last year. State gasoline taxes ranged from 3 to 7 cents a gallon; those on diesel and other fuels varied from 3 to 8 cents. The average tax rose from 4.8 in 1952 to 5.1 cents in 1953.

## Car Races Banned on AF Property

SPORTS CAR FANS who have been watching their favorite types of cars compete in races at air bases in this country will have to look elsewhere for this entertainment. Last of these contests sponsored by the military was booked for Westover Air Force Base, Mass., on June 13. In a recent order, the USAF Chief of Staff forbade the holding of the races on military property. Only those on which bonded contracts had been signed or considerable money spent were allowed to go on. The Westover race was the final one meeting these requirements.

PROCEEDS FROM THESE CONTESTS were placed in a base fund and later used to improve recreation rooms and other non-duty facilities for the airmen. This use of the money is not opposed by members of Congress, but some lawmakers recently raised questions concerning payment for property damage and spectator injury which might occur during a race. Rep. Errett P. Scrivner, Republican, Kansas, also suggested that spectator events staged on government property and involving use of military personnel to do such things as sell tickets and direct traffic may do very little good for the civilian taxpayer or the airman. The Air Force order to cut out auto racing shows was issued a number of weeks after Mr. Scrivner made his statement.



## More Merger Rumors Are Flying

Rumors of further mergers in the automotive industry still are persistent. A Studebaker-Packard tie-up is being urged by financial interests who are submitting proposals to both managements. Indications are that both companies are willing if they can get together

on the right basis. There are no negotiations going on directly between the principals at the moment, however. Nonetheless, a merger of the two companies is possible and quite logical since their product lines do not overlap materially.

## Auto. Dealers Spent \$221 Million for Ads

The National Automobile Dealers Assn. reports that new car dealers spent in the neighborhood of \$221 million for local advertising in 1953. Statistics compiled by NADA for the first time showed the average outlay amounted to \$38.06 per new car sold. The total

expenditure included ads placed in local newspapers, on radio and television and for handbills and signs.

## New NADA Quarters Rising in Washington

The National Automobile Dealers Assn. is constructing a modern eight-story building at the corner of K and 20th Sts., N.W., in Wash-



**TO PUSH OR TO PULL** seems to be the question. The donkeys refused to cross the white lines on the Boston-Concord highway. Traffic was held up ten minutes in the downpour until the couple used their pony to lead the stubborn animals to the other side of the turnpike.

**MUSIC LOVER'S CYCLE** was made by NSU in Germany to please a rider looking for novelty.



ington, D. C. To be known as the Automotive Building, it will serve as the national headquarters of NADA. Other groups and associations in the automotive field also will occupy office space in the building.

## Anti-Bootleg Clause For Dealer Contracts

NADA is reluctant to give details about its anti-bootlegging proposal handed to the Justice Department. However, it requests, primarily, permission to reinstate in new car



franchises an anti-bootleg clause that defines the dealer strictly as a retailer with penalties for violators. NADA specifically asks that if such clauses are inserted criminal liability be waived with respect to both manufacturer and dealers. Regardless of the outcome, legislation undoubtedly will be introduced in Congress to make the bootleg clause legal as part of the anti-trust laws. Incidentally, there seems little chance that territory protection clauses will come back into new car franchises.

## NUCDA Reports Sales Up, Inventories Down

A continued upbeat in sales for the second consecutive month was noted by the National Used Car Dealers Association whose membership reported April sales two per cent over the same month a year ago.

At the same time, NUCDA's cross-country survey recorded inventories down three per cent as of May 1, compared to May a year ago. This marked the second consecutive month in which inventories declined.

The 11-state Western region sparked the favorable report with a strong sales upturn of almost 17 per cent ahead of April a year ago. Inventories, too, were down with May stocks 16 per cent.



**THE PRESIDENT'S CUP** was awarded to William C. Spear, Southport, Conn., by Mr. Eisenhower for winning the recent first annual Sports Car Club of America race. The winner averaged 81.85 mph for the 201 mile race.

## Price Cut Predicted On Power Steering

Another cut in the price of power steering to below \$100 as optional equipment on some GM cars and possibly others is forecast by W. H. Doerfner, general manager of GM's Saginaw Steering Gear Div. With increasing volume the price of GM's unit already has been reduced about \$50 from the \$185 tag put on the unit when it was introduced in 1952.

The lower price forecast for some cars indicates that Chevrolet and probably Pontiac might go to the linkage booster type which GM has tooled to produce and which it now supplies to Hudson. Studebaker also uses the GM integral type gear and it too might possibly adopt the linkage booster.

## April Registrations Pass Half Million

New passenger car registrations for April should approximate 519,000 units, to make the month the best since July, 1953, R. L. Polk & Co. indicated today. The total would establish April as the best month thus far this year, comparing with the 480,731 new cars registered in March, but would be less than the 528,278 new cars registered in April, 1953. With the total assured above the half-million mark, April joins the fabulous ring of 500,000-plus months.



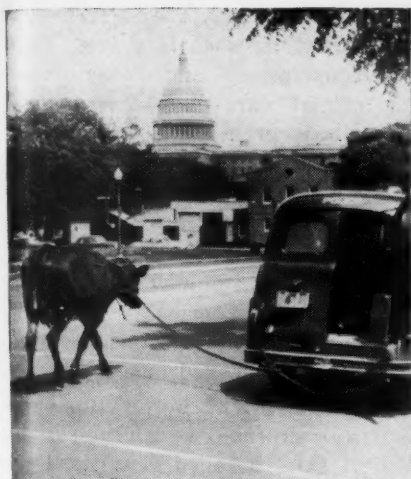
**HIS PINT SIZED JEEP** complete with 1½ hp engine can do 12 mph but is governed to 5 mph. When the accelerator is depressed it engages gears that move the car; when released the brakes take hold. At right, first graders pilot their cars on the training course at Kansas City, Mo.



Doerfner also revealed that GM has developed a greatly simplified, smaller integral type gear which will go into limited production later this year. The unit has only 49 parts and weighs 38 lb. It is expected to be adopted by Cadillac, Lincoln, and probably some Oldsmobile and Buick models in 1955.

Doerfner predicts that within three years about 75 per cent of all new cars produced will have power steering on either a standard or optional basis.

**FOR THE BIRD**, Tweety, his owners built this cage in the glove compartment of the car. He goes on long trips or just rides along to work while perched in the cage or on his front porch (right).



**ANOTHER BEEF** for the capitol. She fell off a truck and the police are taking her in.



**THE AUSTIN-HEALY**, being inspected here, joined in the 3rd annual Reno rally.

# Engineering Highlights

by  
**Joseph Geschelin**  
Engineering Editor



**T**HIS is the year of decision on tubeless tires. Judging by what we are told on an "off-the-record" basis by some motor car manufacturers, and what has been said recently by the major tire makers, it is safe to say that tubeless tires will be offered by three or four makers—maybe more—as optional equipment on 1955 models. We judge by the evidence that car buyers will be offered a free choice of either conventional tire-and-tube or tubeless equipment without extra cost. At least that is the plan at this writing.

It is even possible that at least one make may offer this option before the end of the present model year.

What has happened to bring the situation to head so dramatically. This happens to be the third annual report on tubeless tires by this writer. Tubeless tires are no longer a novelty. They have been on sale by dealers for some five years and millions of them are riding the highways. However, up to this point tubeless tires have been super deluxe equipment, puncture proof, selling at top price. It was realized by everyone concerned that unless such tires could be produced to sell at least at the price of conventional tire and tube assemblies there was little hope of their general adoption as standard equipment in passenger cars.

It has taken time, many years in fact, but several things of major importance have borne fruition. In the first place, the major producers now are making tubeless tires that compare in price with

(Continued on page 106)

## 1954 NEW PASSENGER CAR REGISTRATIONS\*

Arranged by Makes in Descending Order According to the 1954 Three Months' Totals

MAKE	THREE MONTHS			Units		Per Cent of Total	
	March 1954	February 1954	March 1953	1954	1953	1954	1953
Ford.....	115,607	91,789	81,076	288,809	227,615	24.26	17.93
Chevrolet.....	115,070	89,390	116,786	286,603	276,550	24.07	21.79
Buick.....	47,972	33,292	41,422	104,943	102,204	8.81	8.05
Plymouth.....	34,862	29,318	47,768	97,542	136,005	8.19	10.72
Pontiac.....	32,126	25,292	33,210	82,073	86,158	6.89	6.79
Mercury.....	27,165	23,062	21,557	74,087	59,133	6.22	4.66
Oldsmobile.....	35,037	20,808	28,751	69,622	71,271	5.85	5.62
Dodge.....	13,673	10,976	25,717	36,232	67,959	3.04	5.35
Chrysler.....	10,179	8,471	13,600	27,683	36,376	2.32	2.87
Studebaker.....	8,319	7,045	11,822	23,246	31,040	1.95	2.45
Cadillac.....	10,545	6,409	9,940	20,173	26,641	1.69	2.10
De Soto.....	7,039	6,046	10,062	20,049	27,762	1.68	2.19
Nash.....	7,440	5,502	16,005	18,726	41,356	1.57	3.26
Packard.....	4,954	3,718	7,943	12,766	21,047	1.07	1.68
Lincoln.....	3,525	2,750	2,510	8,944	7,946	.75	.63
Hudson.....	2,703	2,221	6,160	7,885	16,176	.68	1.27
Willys.....	1,573	1,325	5,075	4,302	13,974	.36	1.10
Kaiser.....	814	469	2,659	1,762	7,491	.15	.59
Henry J.....	135	119	1,280	414	3,726	.03	.29
Misc. Domestic.....	147	44	250	306	672	.03	.05
Foreign.....	1,846	1,546	2,775	4,672	8,043	.41	.63
Total—All Makes..	480,731	369,592	486,368	1,191,021	1,269,177	100.00	100.00

\* Based on data from R. L. Polk & Co.

## MARCH LOW-PRICED CAR SALES UP 7% OVER 1953

### 1954 Retail Car Sales By Price Groups\*

#### Number of Cars

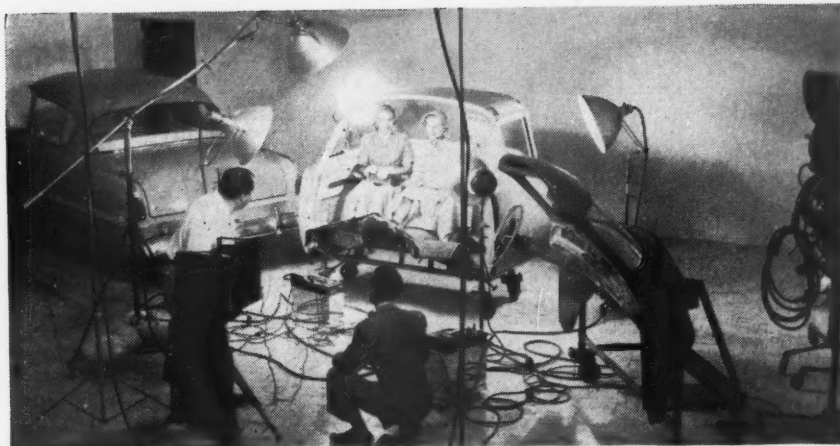
Price Group	March				Three Months			
	1954		1953		1954		1953	
	Units†	% of Total	Units†	% of Total	Units†	% of Total	Units†	% of Total
Under \$2,000.....	275,910	57.62	259,182	53.61	696,072	58.69	676,418	53.65
\$2,001 to \$2,500..	124,894	26.08	136,059	28.14	312,625	26.38	352,486	27.96
\$2,501 to \$3,500..	57,118	11.93	68,697	14.21	124,471	10.49	177,568	14.08
Over \$3,500.....	20,906	4.37	19,522	4.04	52,938	4.46	54,300	4.31
Total.....	478,828	100.00	483,460	100.00	1,186,106	100.00	1,260,772	100.00

#### Dollar Volume of Sales\*

Price Group	March				Three Months			
	1954		1953		1954		1953	
	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total
Under \$2,000.....	\$502,344,088	48.95	\$485,869,534	45.00	\$1,267,670,225	50.28	\$1,217,061,648	45.02
\$2,001 to \$2,500..	285,897,109	27.86	306,115,838	29.58	713,185,574	28.28	790,902,584	29.26
\$2,501 to \$3,500..	157,160,759	15.31	189,588,439	18.32	359,123,571	13.45	487,277,675	18.02
Over \$3,500.....	80,893,068	7.88	73,446,475	7.10	201,493,794	7.99	208,181,311	7.70
Total.....	\$1,026,295,024	100.00	\$1,035,020,286	100.00	\$2,521,473,164	100.00	\$2,703,423,218	100.00

\*—Calculated on basis of new car registrations, as reported by R. L. Polk & Co., in conjunction with advertised delivered price at factory of four door sedan or equivalent model. Does not include transportation charges or extra equipment.  
†—New registrations of American made cars only. Does not include imported foreign cars.





**SECTIONAL AUTOS** are used by commercial photographers for 'snapping' pictures from all angles. Here models are being photographed in the center section. At left is the rear section and at right the front.

## St. Louis BBB, Dealers Plan Ad Regulations

The Better Business Bureau of St. Louis, the automobile dealers of St. Louis and the Advertising Club of St. Louis, launched a comprehensive program of voluntary self-regulation of advertising and selling practices in the automotive field. Standards of practice governing the advertising and sale of automobiles, trucks and trailers were adopted and formalized at this meeting.

The highlights of the standards are the requirement, in the public interest, that "new" cars can only be advertised by regularly franchised dealers, and the barring of such questionable practices as "baiting" and "bushing."

Additional requirements provide that all advertising, particularly classified advertising, shall specifi-



**WARNING SIGNS** posted by U. S. military units in Korea have been effective in pointing out the dangers ahead.

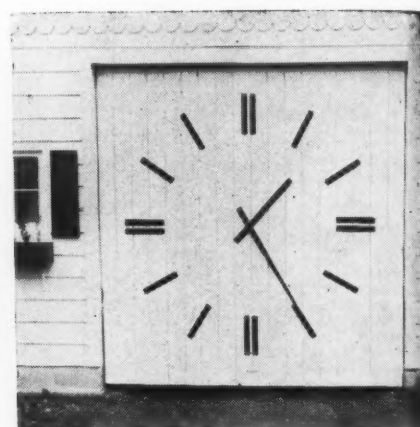
**A GOOD TURN** is done for the drive-in customers at this bank. The turntable, controlled by 3 photo electric cells, automatically turns a car driven onto it 120 degrees to face the drive-in window.



cally indicate that the advertiser is a "dealer," if such is a fact; that "demonstrators" and "executives" or "official" cars shall be accurately described; prohibition against unwarranted savings claims and unsupportable superlatives unless proof of the accuracy of such claim is made available.

In the field of financing the usage of such misused terms as "no down payment," "name your own terms," are carefully spelled out.

Based upon the Better Business Bureau's experience with the recent "blitz" sales detailed definitions of terms such as "Only \$X profit" are contained in the standards. Under this section the Bureau points out that the public knows full well that a dealer must make a profit and that statements in this category are misleading to the public.



**AN IDEA** for repair shops is this 8-foot garage door clock. It really keeps time and allows use of the door.

## Auto Firms Eyeing Changes in Axles

Some automobile companies which have greatly increased horsepower and torque of their engines now are taking a look at rear axles to determine whether some modifications may be necessary to take care of the greater power output.

There has been no serious trouble on this score yet, but one or two companies report some noise problems and indicate that some design modification or beefing up may be necessary to balance the rear axle with the greater torque loads of more powerful engines.

# Report to Our Readers



"we won't make a cent . . ."

This might have happened to you. The prospective buyer of a new automobile was ready to sign on the line and the usual post-operative chit-chat was in order between car salesman and new customer.

"We've trimmed our price on this deal, mister, to a point where we won't make a cent—in fact we may lose money on your order," spoke the salesman.

"No, kidding," said the new buyer, "you won't make a cent on my order?"

"Check and double-check," moaned the salesman.

"Give me that order you've just written," demanded the customer. When it was handed to him, he proceeded to tear it to shreds. As he walked out he reminded our friend the salesman that he, the lost customer, was a business man, in business to make an honest profit. Furthermore he'd be the last man to deal with a guy who didn't want to earn a profit on his sales effort! *The business of business is profit.*



"Would you mind stepping up on our desk until I close the door."

## take time to train apprentices

Two interesting developments came to our attention this month. (1) There are 677,000 automobile mechanics in the skilled labor force of America. (2) 644,000 young men will graduate from high school this month.

The first fact was given in a publication titled "The Skilled Labor Force," released recently by Secretary of Labor James P. Mitchell. Included in the publication is information on the distribution of craftsmen by industry, trade, and locality; their ages and educational background; their income and status . . . and other pertinent data. The study can be purchased from the Superintendent of Documents. U. S. Government Printing Office, Washington.

Our high school graduates provide a fertile field of recruits for the dealer sales and service departments, for the independent who looks to the future for young and strong men to develop in the same spirit as men in this business have grown through the years. The spirit is still there—but as N.A.D.A. points out you've got to go after these young graduates.

## the car could change the world

"How long could the police state withstand the automobile as we use it?" asked James Cope, vice president of Chrysler in a recent address. Mr. Cope pointed out that the use of automobiles as the American people employ them today could become a potential future instrument in the liberation of oppressed peoples all over the world.

Mr. Cope observed that in a single month, we scrap—throw away—as many cars and trucks as the total still in use in all of India. In six months we scrap as many motor vehicles as are in use in all the vastness of Soviet Russia.

"I wonder," continued Mr. Cope, "if there are not nations whose political orientation might be turned around if they were suddenly to come into possession of just the number of vehicles

which are out on our used-car lots."

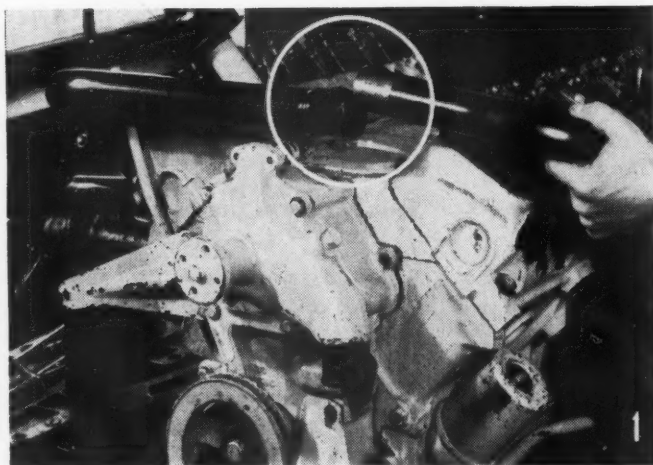
## we see by the papers

An applicant for a job in a car dealership told his boss that the only thing that kept him from going to college was high school. . . . A Cincinnati paper carried this headline: Traffic Violators Cut In Half. . . .

*Frank P. Tighe*  
EDITOR

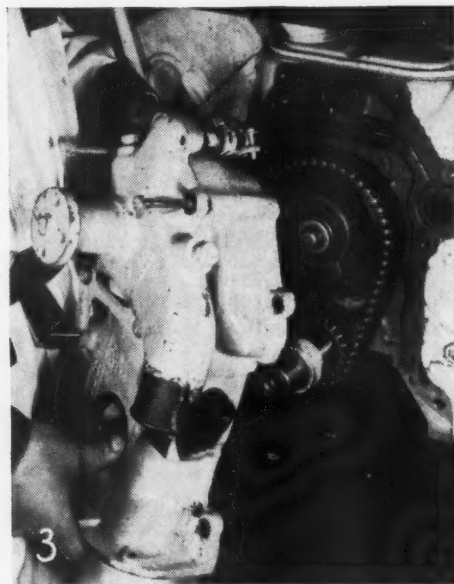
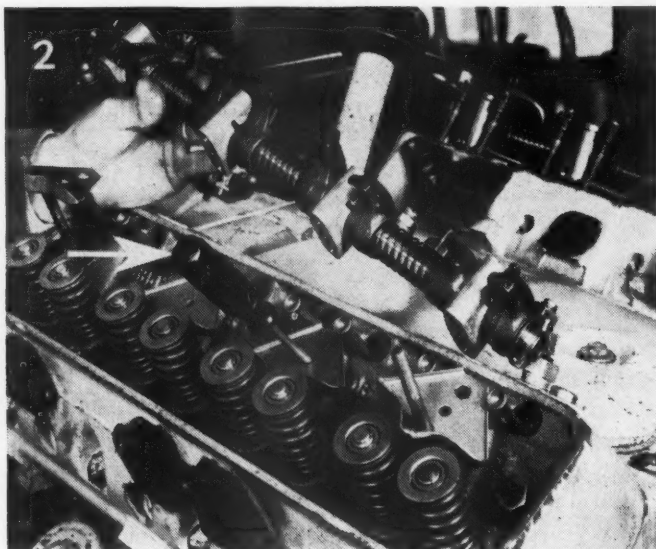
# Exclusive! Servicing Ford's

*Jack Montgomery, Tech. Ed.  
makes notes on major service points*



1. Removing exhaust manifold and pipe as an assembly, Note how exhaust slides apart. When installing, coat mating surface of the manifold with a light film of graphite grease. Tighten the bolts, working from the center to ends to 23-28 ft. lbs. torque.

2. Removing rocker arm assembly. Rocker arms are interchangeable with either head. Screwdriver indicates oil feed hole to rocker arms. Note oil baffle plates.

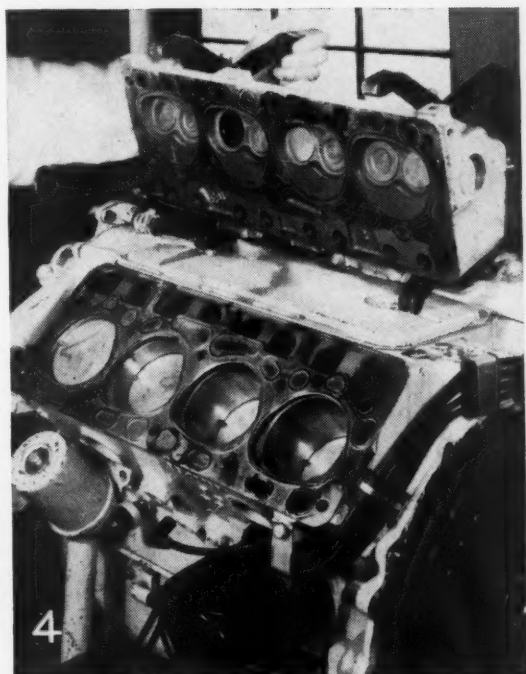


3. Removing timing case cover and water pump as a unit. When installing, apply a light film of grease to the rubbing surface of the oil seal. Tighten cover bolts to 23-28 ft. lbs. torque.

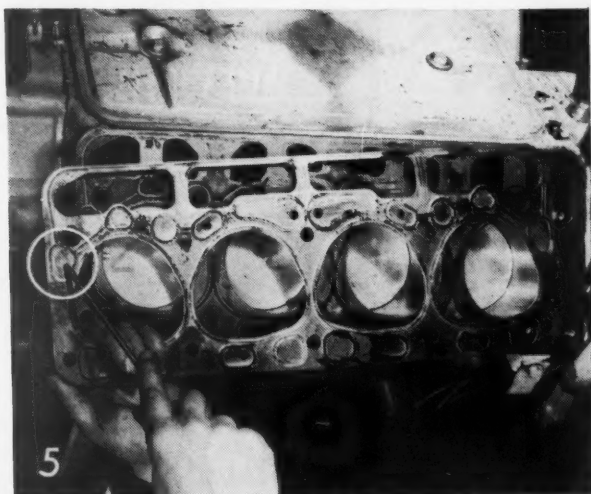


# OHV-V8

*of the new Ford engine.*



4. Removing cylinder head. Note notches on front of pistons. Always install pistons with notches to front and the numbers on rod and cap facing down. Push rods should be removed in sequence and placed in a rack so that they may be replaced in their original position. When installing heads, the gaskets should be coated with a good non-hardening sealing compound and torqued to 55 lbs. cold and retighten 65 lbs. cold again. Run the engine until thoroughly warmed up and retighten head to 75 ft. lbs.

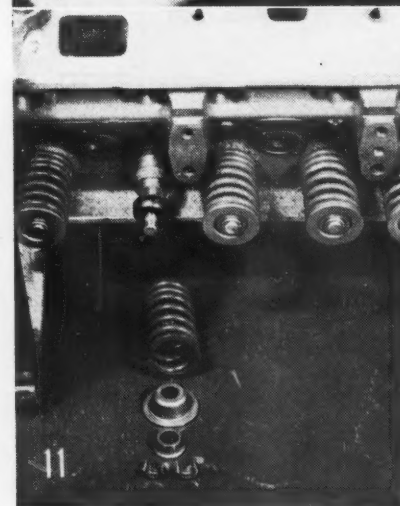
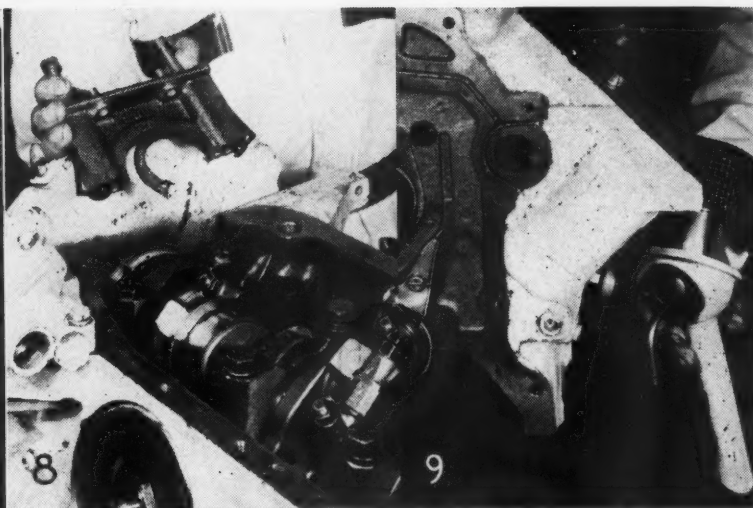
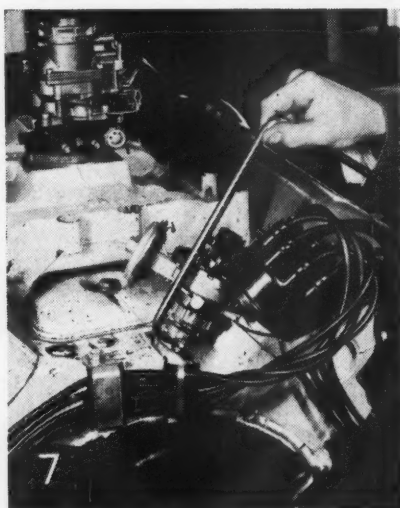


5. Head gaskets will fit either bank. Gaskets have front stamped on them. The front mark should face the top. Before installing head gaskets, check the head for cracks and warped gasket surfaces. Make sure the gasket surfaces of both the head and block are clean and free from burrs and scratches. Burrs can be smoothed by using an oil stone.

6. Removing the piston from the block. Assemble the rod to piston with the numbers on the rod and cap down and with the oil spit hole facing up.



## Servicing Ford's OHV-V8



7. Special tool for loosening distributor lock bolt for setting ignition timing. Set point gap to .014 to .016 inch.

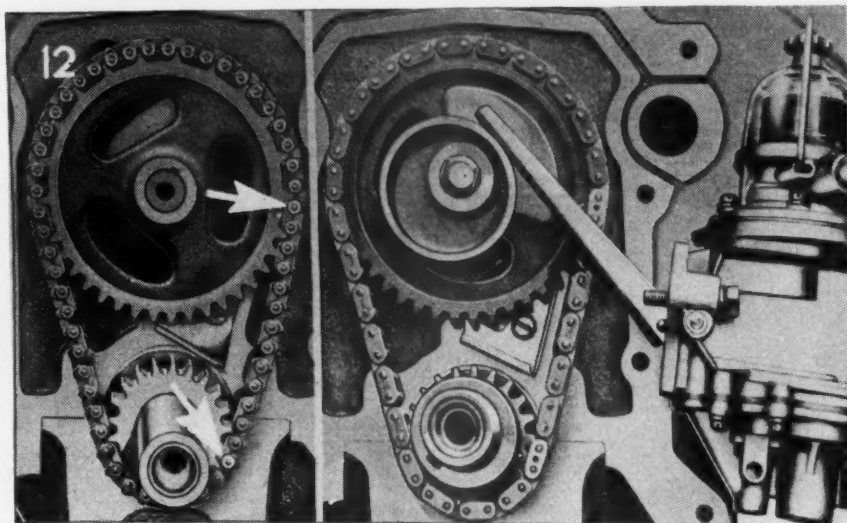
8. To replace rear main oil seal, remove cast iron oil seal retainer.

9. If an oil leak develops at breather, check to see if the copper tube is installed properly. Copper tube should face downward.

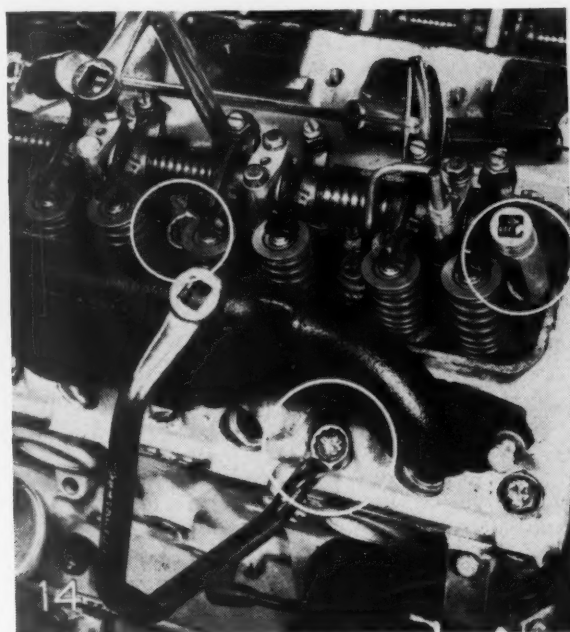
10. Camshaft end-play is adjusted by replacing small chamfered ring. The chamfer should face inward. The end-play should be between .003 and .006 inch. Check end-play by using a dial indicator.

11. Exploded view of valve stem oil seal and rotator arrangement. Note how valve locks fit into sleeve and retainer.

12. Two types of timing chains are used in service. Valves are correctly timed when the drilled holes in the chain link line up with the punch marks on the gears (right view), and when the brass washers are above and below the marks on the gears (left view).



13. Adjust valves to exactly .019 inch after the engine is warm and has been idling for at least twenty minutes. Using asbestos on top of manifold protects hands from getting burned.

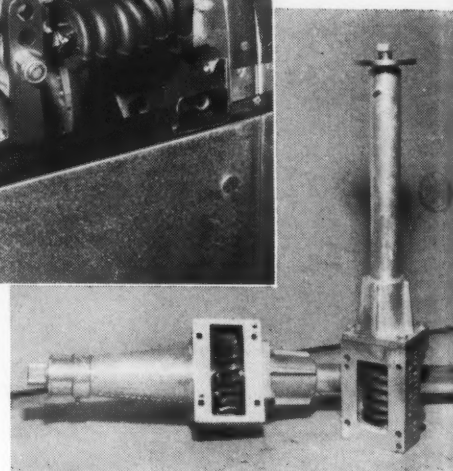
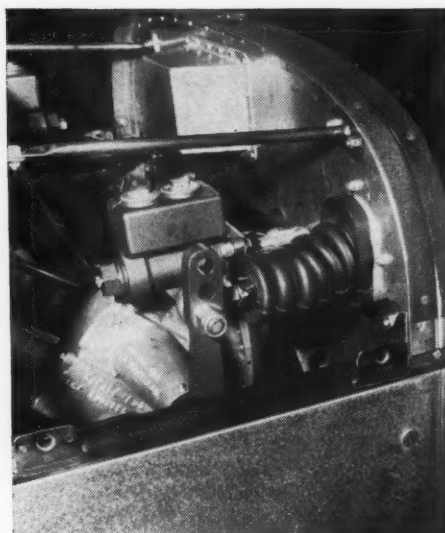


14. Special tools which are needed to remove and replace cylinder head.





# VUKY Wins



**Bill Vukovich predicted he'd win, in spite of Jack McGrath's record qualifying run of 141. In fact, he thrived on the better competition and came from 'way back to set his own marks**

**The Casale steering unit, shown above, was new at the track this year. It is shown in the top view installed in the Dr. Sabourin Special.**

**by Jack Montgomery, Technical Editor**

**Z**OOMING to a record breaking triumph, Vukovich is the third driver in Indianapolis history to win two years in a row. The clocking on Vukovich was almost two miles per hour faster than the 1952 record set by Troy Ruttman, who came in fourth this year. Number two and three men were Jimmy Bryan

and Jack McGrath. The time for Vukovich was 3 hours, 49 minutes and 17.27 seconds. Having started in 19th position, he took the lead at the 400 mile mark with a 131.566 average.

Tough luck rode with both Bryan and McGrath. Bryan was running with a broken main leaf on the front spring and a broken shock link

# Again-Averages 130.8 MPH



Ernie Casale, mechanic on Dr. Sabourin's car, discusses spark plugs with Jack Montgomery.



Len Duncan climbs out of the Ray Brady Special after having qualified at 139.217 mph.

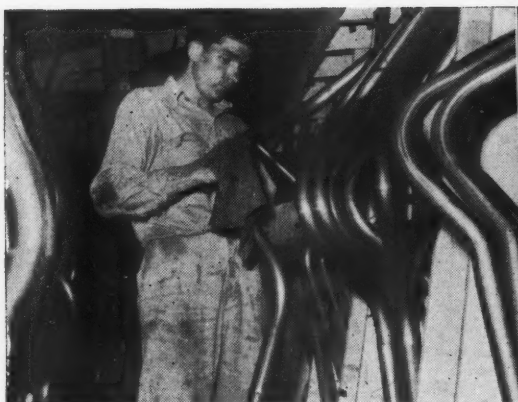
in the rear. McGrath had magneto trouble which brought him into the pits. The engine stalled and the ensuing delay tied him up for over a minute and a half. At one point, McGrath was clocking over 142 mph—a terrific speed in competition.

There was plenty of excitement at the track during the qualifying runs, too. The 33 qualifying cars had an average speed of 138.632 mile per hour, which is an all time record speed for Indianapolis. Nine drivers bettered the previous qualifying record of 139.600 set by the late Chet Miller in 1952. They were Jack McGrath, Cal Niday, Jimmy Daywalt, Jimmy Bryan, Mike Nazaruk, Johnnie Parsons, Larry Crockett, Rodger Ward and Len Duncan. Jack McGrath, the first man ever to hit 140 miles per hour on the track, set a new qualifying record at 141.033 for ten miles and a new one lap  $2\frac{1}{2}$  mile record of 141.247. McGrath also is chief mechanic on

*(Continued on page 108)*

Checking wheel alignment on one of the Chapman entries.





The Muffler Shop keeps a large stock of mufflers and tail pipes on hand at all times.



The average muffler replacement can be done in ten minutes, which is an excellent sales point for the shop.

## Silence is their Specialty

Various specialties have branched out from the automotive trade, but this shop is unique in that it does nothing but muffler work

Power tools help to speed the work, especially on the "frozen" tail pipe clamp nuts.



**I**F you're fast enough, profits await in the specialized field of muffler replacement.

The speed, points out John Rodosta, owner of The Muffler Shop, New Orleans, La., must be for servicing customers' cars. "We do an average muffler replacement in ten minutes," he says.

The Muffler Shop is a completely specialized operation; no service work is handled other than muffler installations and replacement. Rodosta opened the shop in November, 1953. Success—thanks in heaviest measure, he says, to complete gearing for speed—can be measured by the fact that three installation employees stay busy today. Considering the average turnover at ten minutes per car and that adds up to a lot of work.

Rodosta is sometimes asked whether such speed is really necessary. "Why should a car  
(Continued on page 78)



# How to Trim



**With the many records necessary in retail automotive service, filing is an important factor in overhead. These hints will be helpful in cutting costs**

**T**HERE'S more to good filing procedures than a cabinet and a set of folders plus keeping them in alphabetical order. Material the automobile dealer puts away in his files for future use has to be available for that use in a matter of seconds, not minutes; space and equipment have to be conserved to avoid waste, and protection must be assured.

Haphazard filing is prevalent in smaller dealer operations. Attention to a few basic details will eliminate the results of such a system. That in turn means our being able to find whatever we want instantly and surely . . . something that can mean dollars and cents on many occasions.

The basic filing systems are: alphabetical (fully 90 percent) by name and subject, numerical using a system of numbers in connection with a set of index cards, geographical and decimal system.

Under the latter all records are classified under ten or fewer principal headings which are numbered 000 to 900. Each heading is di-

vided into ten or fewer subheadings numbered 10 to 90, preceded by the applicable hundreds digit. Each subheading may then be subdivided into ten or fewer headings numbered 1 to 9, preceded by the appropriate hundreds and tens digits.

Easiest and quickest method, and most adaptable to dealer operation, is to classify material according to name and file it alphabetically. The most prevalent waste of supplies in this connection is the use of too many folders in the file. Often a number of closely related listings can be kept in a single folder. Doing so reduces the number of folders needed (cost four to six cents each) as well as space in filing cabinets and also provides closely related information in a single folder.

Another short cut is to create a miscellaneous folder for single paper filings. Some place one such miscellaneous folder with each letter of the alphabet; others for each file drawer and some for the entire cabinet. It cuts down costs.

*(Continued on page 102)*



**Belittling Bert**—In his appraisal, any car is a “dog.”



**Blue Book Bill**—The appraisal guide is his bible.



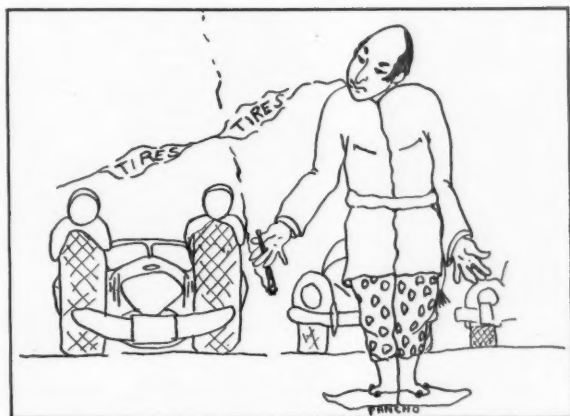
The fast-talking “horse-traders,”  
a few of whom are described here,  
are rapidly becoming an extinct species long to be remembered

**O**LD-TIME horse traders lived an interesting and an exciting life. They will tell of interesting experiences of how they sold a spavined mare to an unsuspecting buyer, and will automatically forget the times they came out second-best in a horse trade.

Today's counterpart, the used-car salesman, also has some interesting stories to tell of deals he has made. Like, for instance, the case of a

salesman who made a deal for a used car for \$100, repainted the car and a week later sold it to the same customer for \$400. Of course, they, too, forget to tell about the old clunker they bought that finally had to be hauled away to the junk yard.

Some used car salesmen are top producing salesmen. They know the selling techniques that will turn a tire-kicker into a used car driver.



**Contrasting Charlie**—He harps on the weak points.



**Sly Sam**—Sometimes so slick he cheats himself.

These salesmen who represent the vast majority of automobile dealer's salesmen can hold their own with any type of salesman anywhere.

There are, however, a few used car salesmen who do not measure up to the top level. These salesmen, as classified below, can be spotted on some used car lots. Spotting them is the first problem. Changing their bad habits is the next problem for an automobile dealer who wants to build volume and profit for his used car sales.

### **Blue Book Bill**

Automobile traders might just as well talk to Bill over the telephone. They will get the same quotation in almost the same way for their car—the blue book list. Bill doesn't appreciate the fact that the motorist has always used seat covers, polished his car once a week, and just bought new tires before trading.

Bill's Bible is the blue book. He is a fast trader because he doesn't have to start the motor, examine the tires, or check the upholstery. All Bill needs to do is to reach into his hip pocket for his Blue Book, aim straight at the quoted price, and fire . . . the customer down the street to another dealer.

### **Belittling Bert**

A scratch on the fender is identified as a smash up in which the car rolled over three times. Bert makes the most of every dent, scratch and crack. His idea is to make his customer feel he would be better off walking than trying to drive this piece of junk.

In fact, after listening to Bert belittle his pride and joy, a customer begins to wonder how

*(Continued on page 82)*

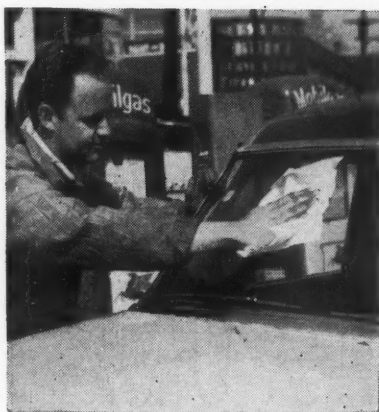


**Windy Willie**—Talks himself right out of a deal.

**Highpockets Harry**—Rates with a gullible customer.







Besides their most popular use on windshields, paper wipers have many other applications.



Grease fittings can be cleaned quickly and inexpensively with absorbent all-purpose paper wipers.



A paper wiper makes quick work of removing grease from steering wheels and other interior parts.

# Lets Get Next to Cleanliness

The problem of oil, grease and dirt has always been a serious one for mechanics.

Here are some suggested applications of paper to wipe away the grease and grime

**P**OSTWAR car designs have caused many mechanics to switch to all-purpose paper wipers for many of the wiping jobs that have to be done in the shops.

This new trend is largely due to the fact that a lint-free product like a good paper wiper is essential when a mechanic, for example, works on an automatic transmission. The same holds true for valve jobs and for almost any internal

Illustrations courtesy Scott Paper Company

work where lint-free wiping is most important.

There are other reasons for the popularity paper wipers and a recent survey of repair and service garages in Philadelphia brought many of them to light.

At Dorn's garage, a small independent repair shop owned and operated by Charles Dorn, both the efficiency of paper wipers and the cost factor

*(Continued on page 76)*



Paper wipers are right on the job to catch drippings when checking lubricant in the rear.



Wiping off air cleaners is easy with absorbent all-purpose wipers, which can be discarded after use.



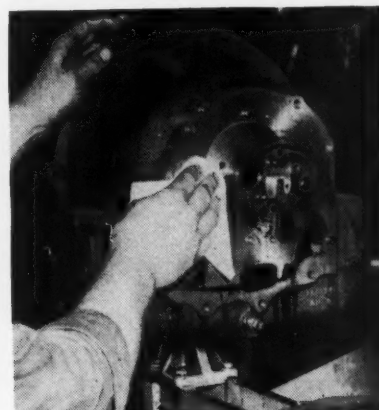
Dirty oil off the dipstick really shows up dirty on a white paper wiper. Helps sell oil changes.



Lint-free paper wipers come in handy on transmission parts.

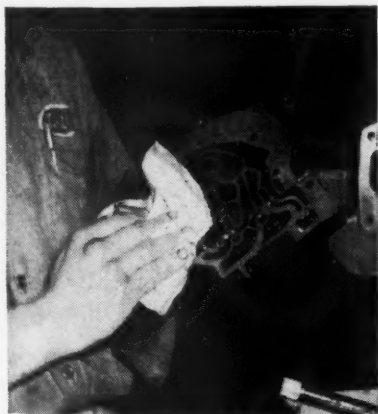


Here a mechanic uses a paper wiper to remove grease from a chain.



Cleaning up a transmission housing is simplified with all-purpose wipers.

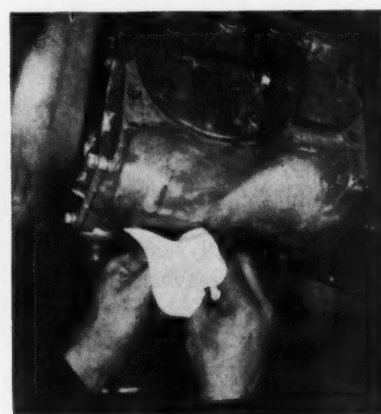
A lint-free paper wiper is excellent for transmission valve bodies.



Paper wipers are shown here being used on a planetary gear unit.



When checking transmission oil, paper wipers are used effectively.



# ANALYZING The Economy Run



WINNERS 1954 MOBILGAS ECONOMY RUN

CLASS—MAKE AND MODEL	Miles Per Gallon	Ton Miles Per Gallon
<b>A. Low Priced—Std. &amp; O.D.</b>		
1) Studebaker Champion Custom . . . . .	29.58	56.51
2) Ford Mainline "6" . . . . .	26.15	55.58
3) Ford Mainline "V-8" . . . . .	23.39	50.75
<b>B. Low Priced Automatic Drive</b>		
1) Hudson Jet-Liner . . . . .	21.64	43.12
<b>C. Low Medium—Std. &amp; O.D.</b>		
1) Dodge Royal V-8 . . . . .	25.40	58.05
2) Mercury Monterey . . . . .	21.48	49.98
<b>D. Low Medium—Automatic Drive</b>		
1) Oldsmobile Super 88 . . . . .	19.75	49.71
2) Dodge Royal V-8 . . . . .	21.35	48.60
<b>E. Upper Medium—Std. &amp; O.D.</b>		
1) Studebaker Land Cruiser . . . . .	28.10	60.85
2) DeSoto Firedome V-8 . . . . .	20.35	49.56
<b>F. Upper Medium—Automatic Drive</b>		
1) Studebaker Land Cruiser . . . . .	24.57	53.99
2) Nash Ambassador Super . . . . .	20.66	47.77
3) Hudson Hornet . . . . .	19.85	47.73
<b>G. High Priced—Automatic Drive</b>		
1) Lincoln Capri . . . . .	19.75	52.29
2) Chrysler New Yorker . . . . .	17.83	45.58
3) Chrysler Custom Imperial . . . . .	16.45	45.14

The winner of this year's run turned in a very surprising record, in spite of the adverse weather and increased stop and go driving

AS is the case in each of these annual events, the recent Mobilgas Economy Run was designed to dramatize and publicize gasoline economy and safe driving. The route covered in 1954 was selected because it represents most of the road, temperature and altitude conditions that the average drivers encounter in a year's time.

Of the total, 188.5 miles were in city limits and on restricted speed roads in the Yosemite Park area. During fairly busy hours, the Run

went through the San Francisco Bay area traffic. It is well known that stop and go driving uses more gasoline than constant speed on open road driving. And, since a recent government survey indicates that 38 per cent of all automobile trips in this country are less than three miles in length, the Economy Run has logically placed more emphasis on this phase of driving conditions.

The official course stretched 1335 miles, from  
(Continued on page 110)



# *One to Remember*

(FOR YOUR BULLETIN BOARD)



**THE BEST PLACE TO FIND A HELPING HAND  
IS AT THE END OF YOUR ARM**



"It's Fred's only economy . . . old peanut butter jars."



"Just because a wealthy banker said good morning to you, Hugo, that's no reason to think you're socially better than the rest of us."



"I love you. I love you. I love you. I love you. Now that puts me four days ahead."



"We was a little disappointed with your calendar this year, Mr. Jones."



# Arc Welders need Service too!

Proper operation and care of your arc welder will guarantee maximum efficiency and minimum repairs. Valuable information on getting the most from your welder is given here.

by G. E. Tenney  
Service Manager,  
Lincoln Electric Co.



**T**HERE are three principal sources of welding current. First, the direct current generator, driven by electric motor, gas or diesel engine or by belt. (The best construction of the former two is to have direct connection.)

Second, the transformer welder with its AC arc. Third, the rectifier with its DC arc.

The proper maintenance of engines is so well understood that no attempt will be made here to cover them.

Regardless of the type welder used as a source of the welding current, the two most important considerations for satisfactory operation are:

1. Proper installation.
2. Keeping clean and properly lubricated.

The first place to avoid trouble with the welder is in the installation of the equipment.

Adequate ventilation should always be provided. Insure a supply of clean fresh air to the welding set at all times. Where dust or moisture conditions are excessively bad, this may necessitate the construction of a separate enclosure.

Dust or corrosive vapor in the air will deteriorate the insulation, damage contacts and shorten the life of the equipment.

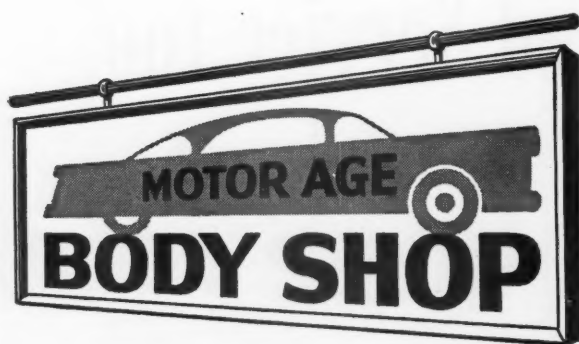
Do not place the welding set where air either coming to or leaving it is blocked in any way. All covers on electric sets should always be kept on and closed tightly because only in this way can proper circulation of air be obtained.

For operation out-of-doors, the set should be protected against the weather with adequate covering. If coils have been exposed to moisture, they may be dried out by baking in an oven or furnace. Drying should be done carefully, however, varying the amount of heat and time with the condition of the coils and type of oven used.

The welder should be firmly and evenly supported wherever it is operated. A welder is a precisely aligned mechanism, and mechanical abuse will destroy the balance and alignment of the armature. Do not drop the welder from

*(Continued on page 88)*





# Don't Goof on "DOOF"

Les Norman's profits soared as a result of his efforts during the "DOOF" campaign last year. Again, this month, Les and thousands of others are back on the bandwagon



A. C. Ivester talks it over with a customer, telling him that in proportion to the skill involved, body repair prices are not high.

**W**HILE his wife goes grocery shopping, a Knoxville, Tenn., autobody refinish shop operator doesn't waste time.

Armed with a pocketful of DOOF estimate tags, Lester Norman, a partner in Leck's Body Shop and Garage, strolls through a parking lot or along a street, affixing tags to cars which need body repair work.

Norman got the tags through participation in the 1953 national "Get the Dents Out of Your Fenders" campaign, an industry-wide program underwritten annually by Minnesota Mining and Manufacturing Co. of St. Paul. The tags provide space for noting location of damage and listing an estimated cost of repairs.

In a single day last June, Norman placed estimate tags—imprinted with the firm name—on 12 cars. Seven of the cars were brought into the shop for body work totaling \$352.40. Norman concedes that his shop is usually full—but that there's always room for another job.

This month thousands of refinish shops and garages across the country are again participating in the DOOF campaign. Some shops have continued to employ DOOF techniques throughout the year, with the result that their refinish volume has steadily increased.

Asked if he intended to participate in DOOF again this year, Norman replied: "Neighbor, we never stopped using it."



Exterior view of Leck's body shop and garage in Knoxville, Tenn., of which Lester Norman is a partner in the body department.

Norman's shop is an independent in a city of nearly 125,000. He entered the present business early in 1953, just prior to his first participation in DOOF. At the start of DOOF month last year he employed three men in the shop and garage; by October, business had increased to between eight and 15 body jobs a week and he hired another full time employee. The shop has about 6500 square feet of floor space.

Estimate tags are not solely responsible for the shop's increase during and after DOOF month. Other business-getters are newspaper ads, mats, mailing cards and window and wall posters—furnished in the free DOOF kit. Norman has found that if a customer forgets about the estimate tag placed on his car that a DOOF mailing card is a good reminder—and that most of his customers respond to it.

One motorist whose car was "tagged" by Norman in a parking lot drove across town to the shop, just to see if Norman actually meant business. Norman did, and the motorist told him, "if you're interested enough in my business to give it this personal attention—it's yours."

The national DOOF committee stresses that there is a large amount of body and fender work available—but that it often must be asked for. The DOOF kit is designed to help shopmen ask for business from motorists who might otherwise drive for months with dented fenders



Getting down to work. Lester Norman straightens a fender on a car which came in as a result of his "DOOF" campaign.

or scratched paint jobs.

According to a national survey, there were 7,607,532 fender repair jobs performed across the nation in 1953, for a total volume of \$152,152,640. The number of jobs last year was only slightly below the peak of 7,952,000 hit in 1950, and showed a substantial increase over 1951 and 1952, during which auto-body repair work slumped.

(Continued on page 100)



## BODY SHOP TIPS

are worth

**\$7.50**

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your **BODY SHOP TIP** clear, and if it is used, you'll receive a check for \$7.50.

### Removes Protective Coating with Sprayer

I've found a simple and efficient method to remove the protective coating on new car bodies. I put the panel on my rack and take it outdoors or near the exhaust fan. (Outside in the open area is safer). Then I fill my spray gun with used thinner (lacquer), cut the spray down to one or two inches and blow it off with fifty pounds air pressure. One coat should be applied first to soften the material. After it is softened, it is a simple job to remove the rest. The job can be finished off with clean thinner of a cheaper grade. After it has thoroughly

dried, a good grade metal conditioner should be used before applying primer surfacer. *Sam Cusimano, Cusimano Bros. Garage, 616 Buffalo St., Jamestown, N. Y.*

### Installation of Bumper And Doors Aided by Jack

I have developed a device for supporting doors or heavy bumpers when they are being installed. It is made of 4-in. angle steel about 3 ft long, with a pipe (the same size as a regular floor jack pivot) welded to the bottom at the center. To use this, remove the pivot from an ordinary floor jack and set this tool in its place. This tool enables a body man to install or remove doors and bumpers by himself. *H. J. Schweitzer, Schweitzer Motors, 5817 S. Packard Ave., Cudahy, Wis.*

### Paint Sags Smoothed Out By Spraying More Paint on Area

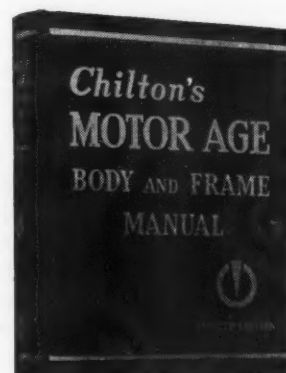
Since paint sags cannot be removed, they can be smoothed out by applying more paint. When the sag occurs, quickly spray more paint on the area so the sag will move down to a moulding or masked section. *Art Stray, Auto Collision Repairs, 319 West Olivos St., Santa Barbara, Calif.*

### Clipping Abrasive Disc Helps on Curved Surfaces

I have found that clipping the edge of a sanding disc into six equal parts aids tremendously in grinding deep curved places in panels. This is done by cutting the edge with tin snips. *Cosby L. Ford, 275 Pine Needle Rd., Athens, Ga.*

### Ball Bearings Found to Be Handy Paint Mixers

I've found a handy way to keep the paint stirred when spraying with metallic paint. I just put several ball bearings into the paint cup and, as a result, I get a better job. *Richard Batlo, 902 Victoria St., Taylor, Texas.*



Other valuable information of the type presented each month in **The BODY SHOP** is available in Chilton's Motor Age Body and Frame Manual.



# Service Suggestions

From the Factories

## Revised Vent System On Lincoln & Mercury

In order to obtain peak performance from Lincoln and Mercury carburetors, and to extend the temperature range of favorable engine starting, a spring type adjustment clip, part number EAD-99608-A, will be installed on the accelerator pump rod at the engine plants. The proper positioning of this clip provides a means for closing off the lower vent holes in the accelerator pump rod, thereby retaining in the engine induction system fuel vapors beneficial to starting a cold engine during winter operation or where ambient temperatures below approximately 50 degrees Fahrenheit are prevalent.

During the summer months, or in geographic areas where ambient temperatures are higher than approximately 50 degrees Fahrenheit, it is desirable to reposition the clip by sliding it upward on the pump rod until the full diameter of the vent holes is exposed.

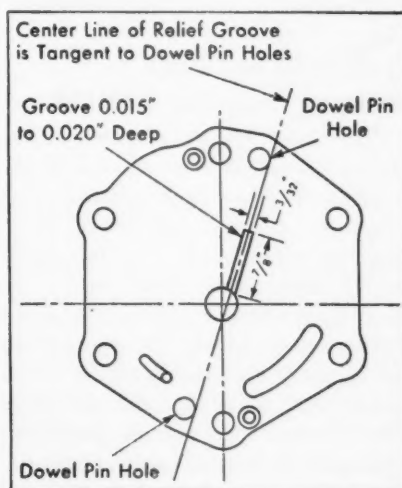
Note: It is permissible to install the solid pump rod, part number EAD-9531-A, link assembly, part number EAD-9526-B, and the stud, part number EAD-9988-B, on subject Lincoln and Mercury carburetors if operating conditions do not require the use of the vented accelerator pump rod.

## Clicking Noise Traced to Trapped Oil in Vacuum Pump

A few reports have been received of a click in the engine which sounds like a loose spark plug wire. The noise, however, has been found to be caused by a small amount of oil trapped in the vacu-

um pump.

This condition can be corrected by grinding a shallow relief groove in the oil pump side of the divider plate between the oil pump and the vacuum pump, or by replacing the plate with a new grooved plate, Part No. 5593547, available from the Factory Parts Department. The groove allows oil trapped between the blades to escape to the oil



pump. When reworking the old plate, a small hand grinder can be used to form the groove. Any burrs raised in the process must be carefully removed with a fine hone.

The condition described will not affect the life or efficiency of the

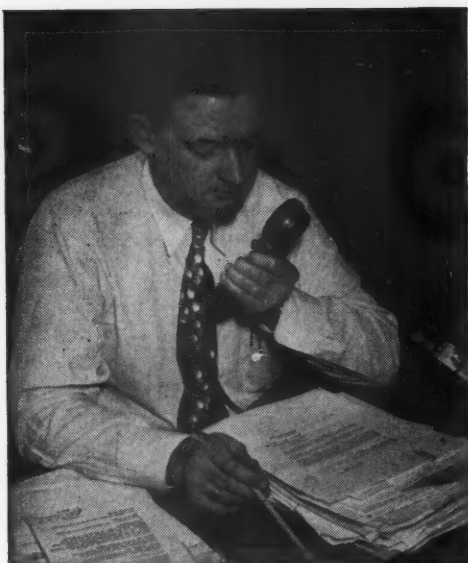
vacuum pump. It is recommended, therefore, that the condition be corrected only in cases of owner complaint.

## Standard Bolt Thickness Reduced on Cadillac

The standard head thickness for all hexagon bolts was reduced several years ago by action of the Engineering Societies and the A.M.A. The various divisions of the General Motors Corporation, including the Cadillac Motor Car Division, have approved the change and are gradually using more of the standard bolts with the thinner heads. Eventually, as the bolt manufacturers tool up to the new standard, all hex head bolts will have the thinner head.

In some cases, the thin head has presented a problem in that a wrench will not fit securely if the bolt head is close to a flange. The Factory Engineering Department is studying the application of hex head bolts in the car to determine where modifications are necessary. If trouble is encountered in the field, the use of flat washers under the bolt head will raise the head sufficiently in some instances to permit the use of a wrench without danger of slippage.





by Jack Montgomery, Technical Editor

- **Plymouth Bumps With New Shocks**
- **Vibration in Dodge**
- **Valve Trouble on Studebaker**
- **Rear Axle Drains Dry**
- **Increasing Horsepower**
- **Mercury Shifts Hard**
- **Pontiac Engine Has Noise**
- **Testing Ford Economizer**

### **Plymouth Bumps Even With New Springs and Shocks**

*Although I bought new front springs and heavy duty shocks for a 1948 Plymouth, it still bumps when I go over rough roads. I took the spring measurements and found that they checked with the instructions. In addition, the inside of the tires are wearing smooth. Would it help if I put it on a machine?*

*George Haggett  
Steamburg, N. Y.*

**I**F the tires are wearing on the inside, the front end should be put on a machine. I'm quite sure you'll find the camber is out of adjustment. I would suggest checking the rear springs, as they may be sagging.

### **Vibration in Dodge Station Wagon at 23MPH**

*My 1954 Dodge station wagon has a vibration that drums in the ears, but gives little shaking. It starts at 23 mph and leaves at 30 mph in overdrive. It returns again at 75 mph. The clutch and drive line have been replaced; tapered shims have been put in between the spring and rear axle; the exhaust system has been adjusted and altered; the shock absorbers and gas tank have been changed; the wheels have been balanced and a vibrating panel can't be found.*

*W. P. Grosjean  
Hillsboro Auto Parts  
Hillsboro, Oregon*

**T**HIS noise could be torsional vibration or it might be com-

## **READERS'**

# **TROUBLE**

ing from the exhaust line. I would suggest checking the rear engine support rubbers and making sure they are flexible. Sometimes removing the spacer between the biscuit and grinding it down a little will help. On the exhaust system make sure the mountings are free and the pipes are not touching anywhere.

### **Exhaust Valve Trouble On '49 Studebaker Champion**

*We are having trouble with a 1949 Studebaker Champ. The exhaust valves on the number one cylinder have been replaced twice in 15,000 miles. We reseated the block and gave them the recommended clearance.*

*Car Conditioning Co.  
Phila., Pa.*

**T**HE trouble is probably caused by overheating. It is possible that scale and rust deposits have



built up around the water passages. I would suggest flushing the cooling system and installing a good rust inhibitor.

**FOR ADDITIONAL SERVICE INFORMATION REFER TO CHILTON'S**

## CLEARING HOUSE

# SHOOTING PROBLEMS

### Rear Axle Drains Dry But Leak Won't Show

I overhauled the differential on a 1951 Chevrolet pick-up ½ ton and put in new ring gear and pinion, case, and all new spider gears. The owner brought it back in a week and said it was howling. I found there was no grease in it; when I replaced the ring gear and pinion I found the grease in the drive shaft. I replaced the drive shaft but it still seems to get inside it, although there is no grease leak. I put in a new vent, but still have to replace grease every week.

Theodore Teaky  
Harvey, N. Dak.

I CAN'T figure how this grease gets inside of the drive shaft and, if it did, it couldn't hold over half a pound. I imagine you mean it is running into the torque tube. If it is filling the torque tube then the customer must be parking the truck on a down grade. If it must be parked this way I would suggest installing a double row bearing with a deflector on the back end to keep the grease in the housing.

### Increasing Horsepower By Shaving Heads

Could you tell me what would be the right amount to shave off the heads of a 1950 Ford V-8 Model OA, 1954 International 100 and a 1936 Ford V-8? What will the increased horsepower be?

Charles Kaiser, Jr.  
New York

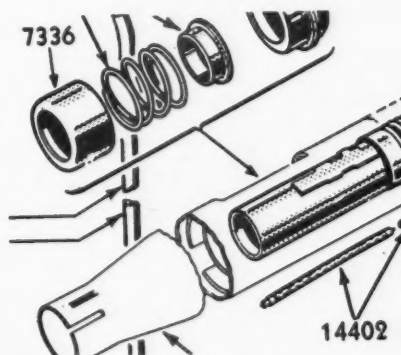
THE correct amounts to be shaved off would be: 1950 Ford

V-8—.050; 1954 International 100—.040; 1936 Ford V-8—.060. They would gain about five horsepower.

### 1952 Mercury Shifts Hard and Stays in Two Gears

We have a problem on a 1952 Mercury. Sometimes the gearshift lever will stick in low and, when it does come out, it usually winds up in two gears at once. We adjusted the linkage and checked the transmission. Everything seems OK.

R. H. Erny & Co.  
Phila., Pa.



USUALLY, when a condition like yours exists, it is due to the shifter tube being cracked or the shift lugs worn on the bottom of the tube. I would suggest replacing the shifter tube and readjusting the linkage.

### Rebuilt Pontiac Engine Has Noise at 40 Mph

I overhauled the engine of a Pontiac and, after about a month, the owner returned it with the complaint that there was a roaring

noise, which comes at about 40 mph. I have overhauled the transmission and differential, installed a clutch and pressure plate.

Charles Henson  
Henson's Auto Repair  
Redding, Calif.

I PRESUME the only time you hear this noise is when the car is rolling. I would suggest checking the universal joints for wear, or perhaps the rear spring center bolts have shifted, causing a vibration. Also, check the front wheel bearings; scored bearings will sometimes set up an annoying noise.

### How to Test Ford Economizer Valves

We have had trouble checking for faulty Ford economizer valves. Please tell me how I can test them.

E. T. Moody  
Moody's Garage  
Simla, Colo.

THE simplest test I know is to take a piece of windshield wiper hose and slip it over the end of the economizer. Suck on the end of the hose and seal it with your tongue. If the economizer is faulty, suction will fall off.



MOTOR AGE FLAT RATE AND SERVICE MANUAL

Chilton's MOTOR AGE, JUNE, 1954



# Current Passenger Car Price, Weight and Body Table

Following are prices at factory for cars with standard equipment as of May 25, 1954.  
State or local taxes, transportation and finance charges and optional equipment are extra.

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight
<b>BUICK</b>					<b>DODGE†</b>					<b>KAISER</b>					<b>PACKARD (Continued)</b>				
Special 40	2010	197	2207	3690	Midowbrk. 6	1816	142	1958	3125	Special	2141	193	2334		Packard				
Sedan, DeL., 2d	2064	201	2265	3735	Club Coupe	1855	145	2000	3170	Club Sedan	2192	197	2389	3210	Sedan, 4d	3068	276	3344	3955
Sedan, DeL., 4d	2102	203	2305	3740	Coronet 6					Sedan, 4d					Coupe	3517	310	3827	4040
Riviera Cpe.	2343	220	2563	3810	Club Coupe	1933	151	2084	3165	Manhattan					Patrician, 4d	3575	315	3890	4190
Conv. Cpe.	2900	263	3163	3905	Sedan, 4d	1958	153	2111	3235	Club Sedan	2404	213	2617		Conv. Cpe.	3618	317	3935	4260
Est. Wagon					Suburban	2044	160	2204	3185	Sedan, 4d	2453	217	2670	3375	Sedan, 8p	5175	525	5610	4550
Century 60					Sierra, 2 seat				3430	Darrin	3368	300	3668		Limousine	5500	550	5960	4720
Sedan, DeL., 4d	2288	232	2520	3805	Sierra, 3 seat				3435					Caribbean	5632	468	6100	4400	
Riviera Cpe.	2301	233	2534	3795	Midowbrk. 8					<b>LINCOLN</b>					<b>PLYMOUTH†</b>				
Conv. Cpe.	2700	263	2963	3950	Club Coupe	1975	154	2129	3320	Cosmopolitan	3226			4190	Plaza				
Est. Wagon	3172	298	3470	3975	Sedan, 4d	1995	156	2151	3375	Sedan, 4d	3322			4250	Bus. Coupe	1480	118	1598	2889
Super 50					Coronet 8					Sport Coupe					Club Sedan	1582	125	1707	2943
Riviera Cpe.	2387	239	2626	4035	Club Coupe	2039	159	2198	3345	Capri					Sedan, 4d	1617	128	1745	3004
Riviera Sed., 4d	2466	245	2711	4105	Sedan, 4d	2059	161	2220	3405	Hardtop	3402			4245	Suburban	1895	149	2044	3122
Conv. Cpe.	2701	263	2964	4145	Sport Coupe	2185	170	2355	3310	Convertible	3549			4450	Savo				
Roadmaster 70					Conv. Coupe	2309	180	2489	3505		3699				Club Sedan	1682	133	1815	2986
Riviera Sed., 4d	3068	305	3373	4215	Suburban	2312	180	2492	3400						Club Coupe	1689	134	1823	2982
Conv. Cpe.	3205	316	3521	4355	Sierra, 2 seat				3605	<b>MERCURY</b>					Sedan, 4d	1717	136	1853	3036
Skyline 100					Sierra, 3 seat				3680	Custom					Belyedera				
Sports Conv.	4100	383	4483	4260	Royal 8					Sedan, 2d	2004			3435	Sedan, 4d	1792	141	1933	3050
<b>CADILLAC</b>					Club Coupe	2156	168	2324	3385	Sedan, 4d	2057			3480	Sport Coupe	1970	155	2125	3038
Series 62					Sedan, 4d	2178	170	2348	3425	Sport Coupe	2117			3485	Suburban	2103	165	2268	3186
Coupe		3838	4347		Sport Coupe	2299	179	2478	3355	Monterey					Conv. Coupe	2115	166	2281	3273
Sedan		3933	4330		Conv. Coupe	2419	188	2607	3575	Sedan, 4d	2133			3515	<b>PONTIAC</b>				
Convertible		4404	4598		<b>FORD</b>					Coupe	2244			3520	Chieftain 6				
Coupe De Ville		4261	4409		Mainline 6	1400			3021	Sun Valley	2385			3535	Spec. Sedan, 2d	1788	182	1968	3331
Eldorado		5738	4809		Business Cpe.	1496			3086	Convertible	2390			3620	Spec. Sedan, 4d	1843	184	2027	3391
Series 60					Tudor Sedan	1542			3142	Station Wagon	2545			3735	DeL. Sedan, 2d	1885	187	2072	3351
Sedan		4683	4490		Ranch Wagon	1846			3338						DeL. Sedan, 4d	1940	191	2131	3406
Series 75					Customline 6					<b>NASH</b>					DeL. Catalina	2112	204	2316	3421
Fltwd. Sedan		5875	5031		Tudor Sedan	1582			3099	Metropolitan		1330	115	1445	Spec. St. Wg., 2st.	2156	208	2364	3601
Fltwd. Imp.		6090	5093		Club Coupe	1591			3080	Hardtop*		1353	116	1469	Cus. Catalina	2174	208	2382	3421
<b>CHEVROLET</b>					Fordor Sedan	1628			3155	Convertible*					Spec. St. Wg., 3st.	2207	212	2419	3691
Special 1500-A					Ranch Wagon	1932			3344	Rambler					DeL. St. Wg., 2st.	2286	218	2504	3646
Util. Sedan	1400	139	1539	3145	Country Sedan	2006			3513	Deluxe					Chieftain 8				
Sedan, 2d	1479	144	1623	3165	Crestline 6					Club Sedan, 2d	1414	136	1550		Spec. Sedan, 2d	1858	185	2043	3396
Sedan, 4d	1530	150	1680	3210	Victoria	1726			3159	Club Sedan, 2d	1553	147	1700		Spec. Sedan, 4d	1913	189	2102	3451
Station Wagon	1845	175	2020	3455	Sunliner	1972			3231	Sedan, 4d	1641	154	1795		DeL. Sedan, 2d	1955	193	2148	3416
DeLuxe 2100					Skyliner	1972			3204	Suburban, 2d	1646	154	1800	2555	DeL. Sedan, 4d	2010	196	2206	3466
Sedan, 2d	1564	153	1717	3185	Country Squire	2133			3563	C'ry Club, 2d	1646	154	1800		DeL. Catalina	2182	210	2392	3491
Sedan, 4d	1615	156	1771	3230	Mainliner 8					Custom					Spec. St. Wg., 2st.	2226	213	2439	3676
Delray Coupe	1625	157	1782	3185	Business Cpe.	1471			3142	Stat. Wg., 2d	1787	183	1950	2570	Cus. Catalina	2244	214	2458	3491
Station Wagon	1950	183	2133	3470	Tudor Sedan	1567			3207	C'ry Club, 2d	1787	183	1950	2550	Spec. St. Wg., 3st.	2277	217	2494	3771
Bel Air 2400					Fordor Sedan	1613			3263	Sedan, 4d	1802	183	1965	2685	DeL. St. Wg., 2st.	2356	223	2579	3716
Sedan, 2d	1669	161	1830	3220	Ranch Wagon	1917			3459	Conv. Sed., 2d	1817	183	1980	2590					
Sedan, 4d	1720	164	1884	3255	Customline 8					Cross C'ry, 4d	1880	170	2050		Star Chief 8				
Sport Coupe	1883	178	2061	3300	Tudor Sedan	1653			3220	Statesman					DeL. Sedan, 4d	2097	204	2301	3536
Convertible	1998	187	2185	3445	Club Coupe	1662			3201	Super					Cus. Sedan, 4d	2184	210	2394	3536
Station Wagon	2090	193	2283	3540	Fordor Sedan	1699			3276	Sedan, 2d	1929	181	2110	3025	Cus. Catalina	2335	222	2557	3551
Corvette 2900					Ranch Wagon	2003			3465	Sedan, 4d	1977	181	2158	3045	DeL. Conv. Cpe.	2403	227	2630	3776
Convertible	3250	273	3523	2705	Country Sedan	2077			3634	Custom					<b>STUDEBAKER</b>				
<b>CHRYSLER†</b>					Crestline 8					Sedan, 4d	2139	193	2332	3070	Champion				
Wind, DeL. 6					Fordor Sedan	1797			3280	C'ry Club, 2d	2223	200	2423	3095	Custom				
Club Coupe	2330	181	2511	3565	Victoria	1941			3305	Super					Sedan, 2d	1595	163	1758	2725
Sedan, 4d, 6p	2350	182	2532	3655	Sunliner	2043			3352	Sedan, 2d	2163	202	2365	3410	Sedan, 4d	1635	166	1801	2745
Newport	2600	201	2801	3685	Skyliner	2043			3325	Sedan, 4d	2215	202	2417	3430	De Luxe				
Conv. Coupe	2800	216	3016	3915	Country Squire	2204			3684	Custom					Sedan, 2d	1705	170	1875	2730
Twn. & Cty.	3056	235	3291	3955	<b>HENRY J</b>					Sedan, 4d	2384	216	2600	3480	Sedan, 4d	1745	173	1918	2765
Sedan, 4d, 8p	3215	247	3462	4185	Corsair					C'ry Club, 2d	2510	225	2735	3550	Starlight Cpe.	1795	177	1972	2740
New Yorker 8					Sedan, 2d	1286	118	1404	2395	<b>OLDSMOBILE</b>					Conestoga	1995	192	2187	2930
Club Coupe	2940	227	3167	3910	DeL. Sed., 2d	1437	129	1566	2445	Series 88					Regal				
Sedan, 4d, 6p	2965	229	3194	3970	HUDSON—Jet					Sedan, 2d	2066	206	2272	3699	Sedan, 2d	1805	178	1983	2745
Newport	3220	248	3468	4005	Sedan, 2d	1465	156	1621	2635	Sedan, 4d	2126	211	2337	3719	Sedan, 4d	1845	181	2026	2780
Twn. & Cty.	3705	284	3989	4245	Sedan, 4d	1685	172	1837	2715	Holiday Cpe.	2230	219	2449	3721	Starlight Cpe.	1895	185	2080	2780
Sedan, 4d, 8p	4025	308	4333	4450	Super Jet					Sedan, 2d	2189	221	2410	3729	Starliner	2045	196	2241	2825
N. V. DeL. 8					Club Sedan	1755	178	1933	2710	Sedan, 4d	2252	225	2477	3780	Conestoga	2095	200	2295	2950
Club Coupe	3130	241	3371	4005	Sedan, 4d	1775	179	1954	2725	DeL. Holiday	2448	240	2688	3775	Land Cruiser	2315	218	2533	3210
Sedan, 4d, 6p	3155	243	3398	4065	Jet-Liner					Conv. Cpe.	2615	253	2868	4003	Commander				
Newport	3410	262	3672	4095	Club Sedan	1860	186	2046	NA	Series 98					De Luxe				
Conv. Coupe	3625	278	3903	4285	Wasp	1870	187	2057	2760	Sedan, 4d	2552	254	2806	3895	Sedan, 2d	1940	196	2136	3075
Sedan, 4d, 6p	3925	300	4225	4355	Club Sedan	2013	196	2209	3375	Holiday Cpe.	2570	256	2826	3851	Sedan, 4d	1980	199	2179	3105
Newport	4205	320	4525	4345	Sedan, 4d	2056	200	2256	3360	DeL. Holiday	2771	271	3042	3938	Starlight Cpe.	2030	203	2233	3085
Town Limos'n	4425	337	4762	4480	Super Wasp	2203	210	2413	3490	Conv. Cpe.	2963	286	3249	4193	Conestoga	2230	218	2448	3265
Crown Imp. 8					Club Coupe	2252	214	2466	3475	<b>PACKARD</b>					Sedan, 4d	2080	207	2287	3120
Sedan, 4d, 8p	6406	466	6872		Sedan, 4d	2252	214	2466	3525	Clipper					Land Cruiser	2220	218	2431	3095
Limousine, 8p	6520	474	6994	5255	Hollywood	2473	231	2704	NA	Club Sedan, 2d	2332	212	2544	3585	Starliner	2280	222	2502	3175
<b>DE SOTO†</b>					Conv. Brghm.	NA	NA												

# Current Engine and Tune-up Specifications

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## Sees Danger In Credit

Editor, MOTOR AGE:

What's happening to business shouldn't happen to anyone twice. Nevertheless, I've seen it happen several times during my 45 years in the automotive business. It's just a matter of, first, too much credit, then overproduction, then collapse.

Since the war we have been building 5 or 6 million automobiles a year, but wearing out only 3 million. The same goes for appliances, tractors and so on; not to mention new homes.

With 24 months to pay, it is possible to sell twice as many of these items as it would be on 12 month payments. But one-half of the total debt is unpaid at the end of each year. So if total credit business is 50 billion per annum, total debt goes up 25 billion every year. That's just what it has done every year since the war.

The only difference I can see between now and the shape of things preceding the collapse of 1929 is that this time there isn't any shortage of money to lend. But who is going to borrow it to buy two refrigerators or two homes when they only need one of each? *Robert E. Lynch, 2944 Garfield Ave. So., Minneapolis 8, Minn.*

## Praises Pa. State Inspection

Editor, MOTOR AGE:

Please read the 25 lines on unsafe cars in Engineering Highlights, page 102 of February's '54 MOTOR AGE. These conditions do not exist in Pennsylvania. You probably live in Detroit and are not familiar with Pa. State Motor Vehicle Inspection.

There are quite a few Model "A" Fords (and other cars of like age) that are kept in excellent mechanical condition due to this state inspection. I have traveled through many states that haven't state inspection and found many cars in very poor condition.

# Letters TO THE EDITORS



It is not uncommon for a 3 or 4 year old out-of-state vehicle to be registered in Pa. and presented a bill of \$100 to \$150 for state inspection, because nothing was done to the vehicle since it left the factory.

In Pa., if a motor vehicle is caught by the State Police with a light out, noisy muffler, or other defects, the operator is given a card to have it repaired at a garage (not by himself). This ticket must be signed by the garage inspector and returned to the State Police in 24 hours or the police call at your home for your license plates, and hold them until the necessary repair is done. *A. J. Clauser, Auburn, Pa.*

*The point that we wanted to make in the article was that only a relatively small number of states have compulsory inspection, or inspection of any kind. Our criticism is directed not at New York, Pennsylvania or Illinois, but at the many states, including Michigan, where no inspection whatever is made of vehicle equipment. We think that all realize that something has to be done in this direction if we are to promote safety on the highways.*

## About the Old-Timers

Editor, MOTOR AGE:

In your Clearing House, which I'm always interested in, a reader asks about a Buick with a Prest-O-Lite starter. Well, this came out on the 1913 models, not 1912. Not much of an argument, only one year off. But, I happen to know, as 1912 was my first year servicing Buicks. I did work on Buicks of 1908, with T-head blocks—flywheel in front, with a gear driven oil pump mounted on the right side of the motor, piped to all main bearings and cylinders and

other moving parts. On one particular car, the oiler was taken off, discarded completely, and the motor ran many years with oil mixed in gasoline in the tank. *A. W. Swanson, Swanson's Repair Shop, Lyons, Nebraska.*

*Many thanks for calling our attention to this point on the Buick starter. We're interested in hearing anecdotes about the "old timers," and passing them on to other MOTOR AGE readers.*

## Benefits From MOTOR AGE

Editor, MOTOR AGE:

I greatly appreciate all that you put into your magazine and get many helpful hints, both mechanical, technical and advertising-wise. . . . My service deals with all scientific tuning, analyzing and so forth, but at my new place, I would like to try out body and fender along with customizing. With the changes in the automotive industry the way they are, about the only chance business men like myself have to keep informed is by asking many questions, or by going through magazines like yours which in my estimation is about tops. . . . *Richard J. Seewald, Rickey's Automotive Technician Service, East Meadow, Long Island, New York.*

*Thanks for your interest in MOTOR AGE. We are glad that it's helpful to you. Your plans for going into customizing work sound interesting. We'd like to hear from you as you develop this line of work. We'd also be interested in hearing about experiences with customizing which any other MOTOR AGE readers may have to report.*



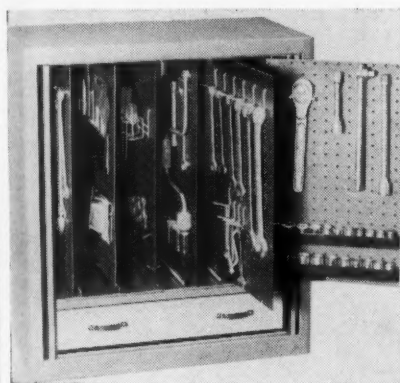
# New

## PRODUCTS SHOW WINDOW

FOR FURTHER INFORMATION USE POSTCARD FACING NEXT PAGE

### 289. Tool Kit

Huot Mfg. Co.: A new concept of tool location and protection for mechanics is built into the "Tul-dex" tool kit, according to the maker. Six 12" & 18" tool holding panels, along with two doors, pro-



vide more than twenty-four square feet of tool storage area. The panels of the kit move on individual tracks on geared, self-lubricating nylon bearings.

### 290. Distributor Tools

Rinck-Mellwaine, Inc.: A two-in-one tool for assembling and disassembling late Chevrolet distributors has been announced. One end is an 11/32 "spin type" socket for the outer hex nut, the other is round and fits the inner round slotted nut. Both ends are hollow for bolt clearance. The cross bar handle furnishes ample leverage.

### 291. Handling Equipment

The second edition of Distribution Age's Materials Handling Equipment Manual is just off the

press. The revised edition includes the Master Chart, Equipment Application Guide and Equipment Selection Guide. In addition, Truck Specifications and Handling Statistics have been included.

### 292. Tachometer

Electro-Mechano Co.: A reliable ignition type tachometer which is simple to mount and connect has been introduced by this company.



The unit can be used on automobile, boat or stationary engines. It shows whether you have correct idling speed, over speed or racing and clutch slippage.

### 293. Mobile Oven

Car-Mon Products Co.: A mobile auto baking oven has been announced by this company. The Auto-Bake has banks of infra-red lamps, mounted in reflector panels, on a motor driven frame that fits over sides and top of the car. It travels automatically on geared tracks along the entire length of the car, producing a finished job in one pass and in one hour or less, the company claims.

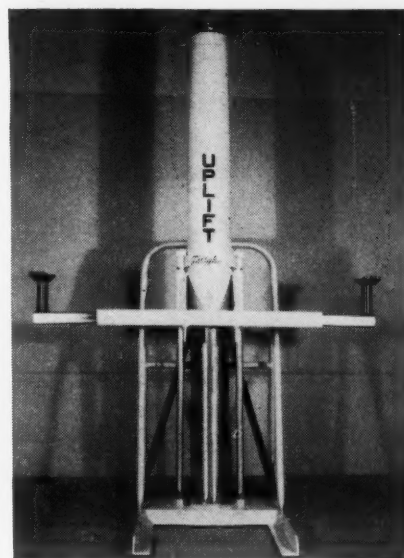
### 294. Car Heater

Arvin Industries, Inc.: A new passenger car and truck heater is announced by this company.

The fresh air or recirculating heater featuring pressure-forced heat originating in a pressure blower equipped with a high-speed impeller operating up to 3000 rpm is the Arvin Model 500. According to the maker, it is designed and engineered to permit installation at popular prices and the heater itself, as well as blower, connecting unit, water hose, fittings and switch, are included in a package.

### 295. Pneumatic Uplift

Dixie Tallyho, Inc.: An air-operated bumper lift, featuring telescoping lifting arms that fit



either front or rear bumpers of all passenger cars and light trucks, (Continued on page 68)

## New Products . . . . . Continued from Page 67

has been marketed by this company. The uplift is portable and can be operated by applying any regular air hose chuck. It can lift more than 3500 pounds to a height of 32 inches (38 with extensions), according to the maker.

### 296. Oil Filter Booklet

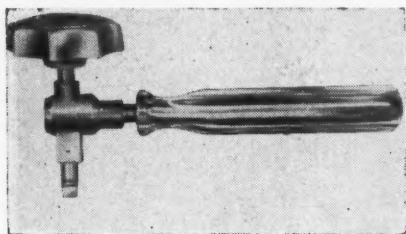
**Purolator:** An informative booklet called "Facts About Filters" is offered by this company. Done in picture strip style, this booklet tells how filters help to keep cars running well and how the filter is made. It's a guide for the car owner in keeping repair bills down, while, at the same time, it offers valuable information to the repair man.

### 297. Starter

**Illinois Accessories Co.:** This company has marketed a new low cost accelerator starter which eliminates the need for key or dashboard button starting. It is claimed that the new accessory speeds up starting, eliminates flooding and will not jam.

### 298. Tappet Wrench

**Owatonna Tool Co.:** A new wrench designed to adjust overhead valve tappets is the latest development in this company's



line. The new wrench has a standard 1/2-inch drive which permits the use of standard sockets.

### 299. Balancing Machine

**Bear Mfg. Co., Industrial Div.:** A new balancing machine developed by this company contains the necessary specifications to handle the majority of the crankshafts, flywheels and clutches found on

today's passenger cars, light trucks and diesel engines. Its general specifications are: swing diameter capacity of 20 inches; shaft diameter capacity of 1/2 inch to 3 1/2 inches at the bearing points; weight capacity of 3 pounds to 175 pounds and a maximum distance between work supports of 45 inches.

### 300. Windshield Washer

**MoPar Division:** A new automatic windshield washer squirts



water-solvent on dirty windshields and starts the electric wipers with only a step on the spray control button on the floor of a car or truck. The new accessory "greatly increases" driving safety as drivers no longer have to take their eyes off the road or one hand off the steering wheel while they fumble for the wiper switch.

### 301. Impact Sockets

**Blackhawk Mfg. Co.:** A new line of impact sockets for automotive work is announced by this maker. The line includes 1/2-inch and 3/4-inch drive wrenches with hex openings in regular and long lengths, plus double square openings in regular lengths.

### 302. Shock Absorbers

**Houdaille Hershey Corp.:** A complete new line of custom-built shock absorbers has been an-

nounced by this company. The "Golden Glide" has a gold finish and a new fluted case design for "greater strength and dissipation of heat." The new shocks fit all domestic and many imported cars.

### 303. Auto Polish

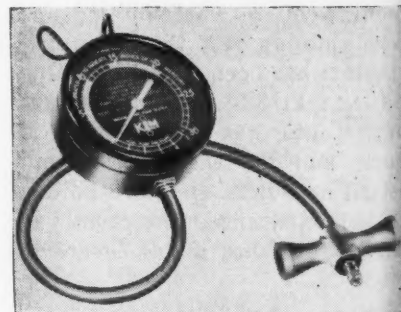
**Johnson's Wax:** A new type one-step auto polish with special properties for intensifying colors on all types of auto finishes has been announced. Called Deep Gloss Carnu, the polish is a blend of five cleaning agents plus a combination of gloss producing chemicals. It is applied with a cloth, allowed to dry and then polished.

### 304. Radiator Bench

**Inland Mfg. Co.:** A new test and radiator repair bench has been announced. The unit features push button operation and has an all electric elevator system that allows the operator to raise and lower radiators to any height for testing or repairing. Tool positions for air blow gun, and a shelf for flux and tools are within easy reach of the operator, the maker states. A built-in support arm makes it possible to work on even the top of a radiator at arm level. The overall size of the bench is 87 inches long, 46 inches wide and 58 inches high.

### 305. Fuel Pump Tester

**Kem Mfg. Co.:** With the new fuel pump tester, which has a flexible Neoprene "bow-tie" hook-up, "the condition of the fuel pump, flex lines and connections can be tested in less than five minutes on



a car. The gage can be connected to any vehicle without threaded adaptors or special fittings."

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1954





USE THESE

Free & Easy

INQUIRY CARDS

### The Inquiry Card—How It Works

**E**ACH month Motor Age's New Products Show Window describes dozens of fast-moving items and money and time saving equipment from the country's leading manufacturers of dependable automotive products.

When you want more free information on any of these products, simply mark a circle around the same number on the postcard as appears under the item described. You may circle as many items as you wish. Use either or both cards. Separate information will be sent to you on each item. Be sure to give your full name and address.

## New Literature

### 306. Windshield Manual

**Libby-Owens-Ford Glass Co.:** A new manual explaining the removal and installation of the new Panoramic windshields and Tuf-flex backlights in 1954 Buicks, Cadillacs and Oldsmobiles is being offered to safety glass replacement shops.

The new 20-page manual contains step-by-step instructions and is widely illustrated with explanatory photographs and drawings.

### 307. Breather Cap Bulletin

**Stant Manufacturing Company Inc.:** The new bulletin is offered to dealers who service cars, trucks and tractors. "The Importance of Oil Filler (Breather) Caps on Automotive Engine

(Continued on next page)

Postcard valid for 90 days only.

Postcard valid for 90 days only.

Frank P. Tighe, EDITOR MOTOR AGE

P. O. Box 76, Village Station, N. Y. 14, N. Y.

6/54

Please send me further information on the New Products, the code numbers of which I have circled below

- |                         |                            |                        |
|-------------------------|----------------------------|------------------------|
| 289. Tool Kit           | 304. Radiator Bench        | 319. Socket Wrenches   |
| 290. Distributor Tools  | 305. Fuel Pump Tester      | 320. Spring Protector  |
| 291. Handling Equipment | 306. Windshield Manual     | 321. Tapered Muffler   |
| 292. Tachometer         | 307. Breather Cap Bulletin | 322. Adjustable Shock  |
| 293. Mobile Oven        | 308. Piston Booklet        | 323. Auto Crib         |
| 294. Car Heater         | 309. Tool Box Catalog      | 324. Glaze Breaker     |
| 295. Pneumatic Uplift   | 310. Muffler Catalog       | 325. Hand Sprayer      |
| 296. Oil Filter Booklet | 311. Fuse Guide            | 326. Air Conditioner   |
| 297. Starter            | 312. NSPA Directory        | 327. San Visor Wallet  |
| 298. Tappet Wrench      | 313. Spring Leaf Pads      | 328. Car Lighter       |
| 299. Balancing Machine  | 314. Soldering Iron        | 329. Tool Tray         |
| 300. Windshield Washer  | 315. Spray Colors          | 330. Windshield Washer |
| 301. Impact Socket      | 316. Coupling              | 331. Abrasive File     |
| 302. Shock Absorbers    | 317. Cutting Pliers        | 332. Frame Kit         |
| 303. Auto Polish        | 318. Power Brakes Kit      | 333. Business Guide    |

Your Name ..... Your Title .....  
 Your Company .....  
 Jobber ..... Independent ..... Dealer .....  
 Address ..... (Street & No.) ..... (City) ..... (Zone) ..... (State) .....

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Your Name ..... Your Title .....  
 Your Company .....  
 Jobber ..... Independent ..... Dealer .....  
 Address ..... (Street & No.) ..... (City) ..... (Zone) ..... (State) .....

## New Products . . . . .

Continued from Page 69

Service" was developed after checks with the Engineering Departments of piston ring and carburetor manufacturers and has some rather vital information on the effect of the breather caps on engine ring and bearing life, tune-up and excessive oil consumption of cars, trucks and tractors.

### 308. Piston Booklet

Sunnen Products Co.: A new 24-page illustrated booklet on the causes and cures of pin fit and piston failures is now available. The booklet traces the history of pin fits through the years and describes the factors affecting pin fits in modern engines. Typical failures are shown and the causes analyzed.

### 309. Tool Box Catalog

Waterloo Valve Spring Compressor Co.: A new catalog showing their standard lines of metal cases, cabinets, chests and tool boxes has been made available by this company. The folder is attractively illustrated and contains descriptions, weights and dimensions.

### 310. Muffler Catalog

Pratt Industries: A new catalog on Pratt preferred dual exhaust systems and Hollywood-type mufflers is now available. Included are illustrations of the various types available and a chart indicating the proper model muffler for a given car.

### 311. Fuse Guide

Littlefuse, Inc.: A new edition of the automotive fuse guide that aids in identification of fuses for automotive lines has been published by this company.

The guide contains pertinent data on circuit, fuse location and types of fuses required in all popular makes and models of automobiles.

### 312. NSPA Directory

National Standard Parts Association: The 1954 Leadership Directory for the organization is currently being issued to members. The new roster lists approximately 3000 automotive establishments manufacturing and distributing replacement parts, tools, equipment, paint chemicals, supplies and accessories.

(Continued on page 118)

#### BUSINESS REPLY CARD

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

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P. O. Box 76,

Village Station,

New York 14, N. Y.

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FIRST CLASS  
PERMIT No. 36  
Sec. 349, P. L. & R.  
New York, N. Y.

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FIRST CLASS  
PERMIT No. 36  
Sec. 349, P. L. & R.  
New York, N. Y.







# Exclusive new "firsts" give Studebaker dealers America's star-studded franchise



First  
in the '54 Mobilgas  
Economy  
Run!

First  
in America with  
sports car  
styling!

First  
in awards for  
stand-out  
design!

First  
with new  
low-slung  
road safety!

First  
with full  
circle-of-sight  
visibility!

First  
with a different  
new station  
wagon!

**STUDEBAKER**  
*America's friendliest factory*





# Shop Kinks

If you've come upon an original idea for making a job easier, a special tool, short cut on a job or any trick of value to other readers, write it down and if necessary, make a rough sketch. Just make it clear. Send it to Motor Age. If we can use your Kink it may bring seven-fifty, possibly 25 dollars. All submissions become the property of Chilton Company. Because of the numbers received, no entries can be returned.

**For The Best Kink Published Each Month . . .**

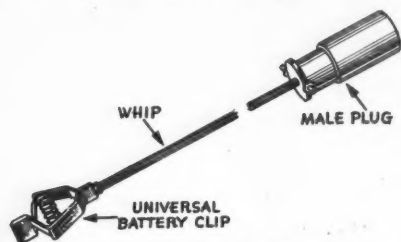
**\$25**

**For All Kinks Published Each Month . . .**

**\$7.50**

## Short Cut for Checking Lights on Tractor-Trailer

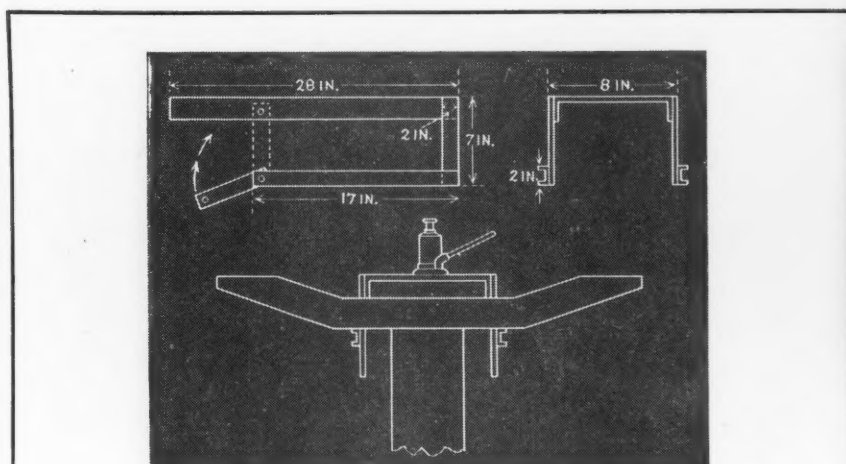
To check lights on a semi-trailer, without the tractor hooked up, take a tractor light whip, remove a male plug and join the four or six wires together. Then put a universal battery clip on the end. With this, one man can clip the whip on the testing battery, plug it in to the trailer light socket, clip the negative jumper to the



trailer and check all lights in three minutes. *T/Sgt. W. J. Sander, USMC, Motor Transport Repair Shop, Parris Island, S. C.*

## Method to Find and Repair Cooling System Leaks

We have experienced difficulty in finding the leak when a loss of solution is noted on Chevrolet Power Glide cooling systems. To locate the source of the leak and remedy it we do as follows: Drive the car for about two miles at 65 or 70 mph. Stop and immediately check the right side of the engine



## Jig Helps In Hydra-Matic Removal

For those who have twin post car lifts, here is a jig that is handy and faster on all Hydra-Matic cars, when pulling the Hydra-Matic for work. It is simple to make in the shop and can be tailored to the shop's lift. Take a piece of 8 inch channel, 28 inches long, weld two 2" x 1/4" x 7" straps at one end on the sides; then weld two 2" x 7" to these, allowing it to slip under the lift arms. Take two 2" x 1/4" x 7" straps and bolt them on the lower channel arms and swing up to 8" channel to bolt. Adjust these dimensions to any number of twin post lifts. With any small hydraulic or screw jack, this jig will support the engine while work is done. *Ben Rush, Jr., 512 Kankakee, Muskogee, Okla.*

between the head and the block. Usually, water will be escaping at this point. Remove the cylinder head and clean it and the block,

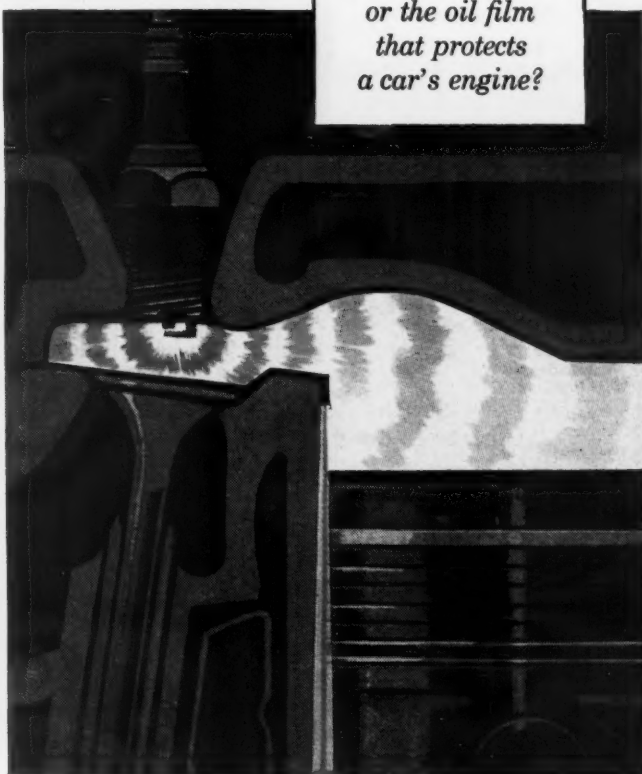
thoroughly. Then check them both for high or low spots and correct any found. Coat both sides of a  
(Continued on page 74)

# WHICH IS THINNER?

*The finest thread  
of a  
spider's web...*



*or the oil film  
that protects  
a car's engine?*



Incredible...but even though the finest thread in a cobweb measures only .00024 of an inch in diameter\*, it is still 10 times thicker than the oil film that lubricates the top of cylinders and pistons.

Old style top piston rings, operating where lubrication is poorest, pressure is greatest and heat is highest, wear more than twice as fast as modern chrome rings. That's why engine manufacturers use chrome-plated top rings... and 34 out of the 36 install Perfect Circles.

In Perfect Circle's 2-in-1 Chrome Piston Ring Set, BOTH the top ring AND the oil ring rails are plated with thick, solid chrome, for complete wear protection. This means thousands and thousands of extra miles of sustained power and lasting oil economy for your customers!

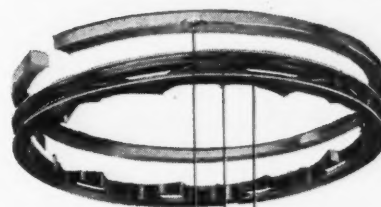
Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., Toronto, Ontario.

## Perfect Circle

### 2 in 1 chrome piston rings

*The Standard of Comparison*

PROTECTION WHERE  
LUBRICATION IS POOREST



SOLID CHROME PLATING on both top and bottom rings gives complete wear protection throughout entire area of ring travel. Rings are lapped-in at factory, making tedious break-in unnecessary.

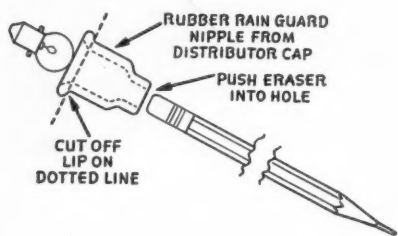
*\*Source of information on request*

## Shop Kinks . . . . . Continued from Page 72

new head gasket with good gasket cement and install cylinder head. Torque bolts to 100 lbs. Refill the cooling system, run the engine till warm and then add a can of sealer. *Ralph Detron, Ault Motor Sales, Inc., 144 S. Main St., Mt. Gilead, Ohio.*

### Device For Removing Map Light Bulb in Buick

In a 1951 Buick "Super" there is very little working space around



the map light. I've found an easy way to replace this bulb. I take a rubber nipple from a distributor cap, cut off the lip, as shown, and insert the eraser end of a wooden pencil about  $\frac{1}{4}$  inch into the small end. Then I fit the larger end of the nipple over the bulb and pushing the pencil inward and twisting to the left, I easily remove and replace the bulb. *Joseph Marinko, DeJoseph's Atlantic Service, Diamond & Cedar Sts., Hazleton, Pa.*

### Easy Method to Reach Dodge Valves

It's difficult to get at the valves in a 1953 Dodge "Six" when working from the top of the car. To make the job easier I cut a section from the fender skirt and work from under the fender. Then I replace the section with screws and strips of metal. This method saves time and a much better job can be done. *Francis Kalwa, Geneva Auto Co., 512 S. Main St., Geneva, N. Y.*

### Freezes Rollers in Stators In Dynaflow Installation

In servicing the Dynaflow, it is often difficult to install the rollers in the stators. To simplify, install

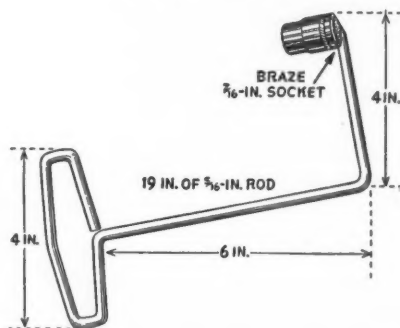
free wheeling rollers and spring in position. Take the tops off of eight spark plugs and use them to depress the rollers and springs, pushing the plug tops down half way. Add  $\frac{1}{8}$  in. to  $\frac{1}{4}$  in. of water and freeze it with a CO<sub>2</sub> fire extinguisher. Now, remove the rollers and install the stator. Keep it warm until the water evaporates. *Robert Klingel, Klingel's Garage, Rear 543 W. King St., York, Pa.*

### Weld Cross Handle, Bearing To Wheel Bearing Wrenches

Wheel bearing wrenches can be handled much quicker and easier by welding in a cross handle. Then take a Chevrolet clutch throwout bearing and weld it to the cross handle in the center of the wrench. This allows you to keep one hand on the bearing while spinning the wrench with the other hand. *Edwin W. Engdahl, Engdahl Repair, Aurelia, Iowa.*

### Troublesome Side Pan Bolt Removed With New Wrench

To do valve work on late model Plymouths it is troublesome to remove a  $1\frac{1}{4}$  inch bolt which holds

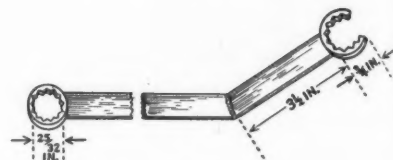


the heater duct and the fender side pan to the upper side pan. In the past an extra man was needed to hold the head of this bolt before it could be removed. I have built a special wrench which will eliminate the need for this man.

Put the wrench between the upper control arm and the side pan. It's a simple matter to hold the bolt head with this wrench and remove the nut. *Floyd A. Luettke, Cass City, Michigan.*

### Converted Box Wrench Used To Adjust Lock Nut Screw

Here is a tool for adjusting the screw on the lock nut of a Chevrolet or GMC truck clutch. Take a



$\frac{3}{4}$  x 25/32-inch box wrench and cut open the end of a  $\frac{3}{4}$ -inch socket so a  $\frac{1}{2}$ -inch bolt can slip through easily. Heat the wrench and bend it, as shown. *O. J. Babin, Air Line Motor, La Place, La.*

### Method to Eliminate Thump In Hotchkiss Drive

We have had considerable trouble with a rear end thump that occurs in the Hotchkiss drive when the clutch is engaged suddenly. We've found that, when this thump is present, the rear axle assembly has a decided pitch downward. To eliminate the noise we place 4 degree shims (widest part toward front of car) on top of the spring under the rear axle saddle. This tilts the axle upward. When torque is applied, the spring will still dip but won't double up.

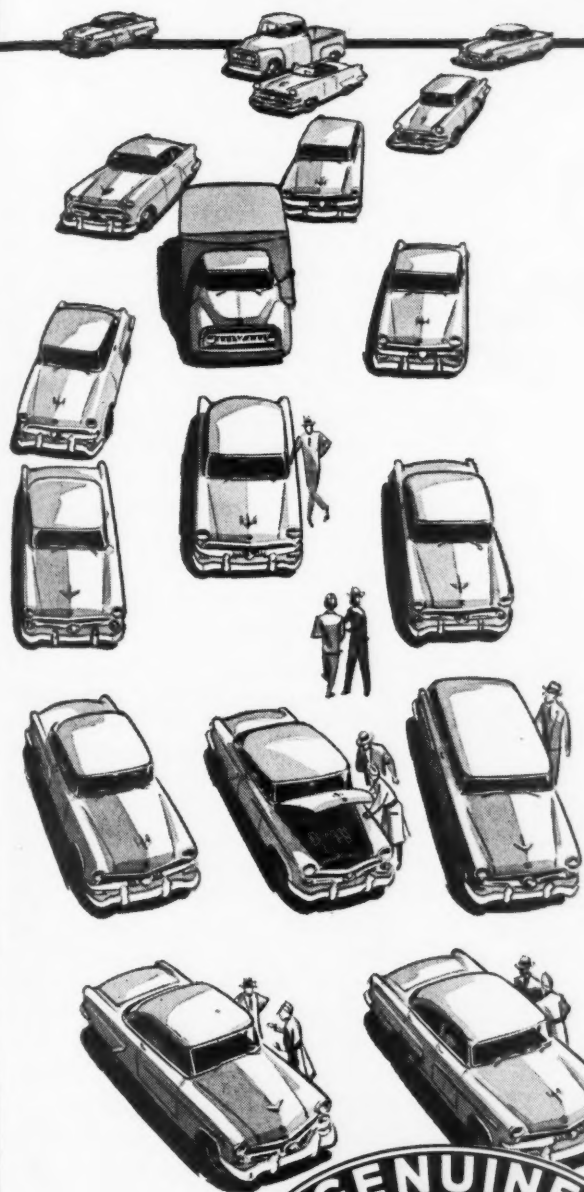
Another method, is to put a valve spring inside the rear transmission support where the drive shaft rides in and out on splines. On a sudden thrust the shaft has to compress the spring. The spring absorbs the force of the thrust and eliminates the accompanying thump. *Joe Gillin, New Haven Lincoln Mercury, New Haven, Conn.*

### Quarter Inch Pipe Used To Stretch Ford Springs

For removing or installing Ford front or rear springs up to 1949 models, just remove the heel of a bumper jack and place it into an eye of the spring. Then take a  $1\frac{1}{4}$ -in. pipe and cut one end at an angle to fit into the other eye. Then place the other end of the pipe over the jack and the spring can be stretched to any desired length easily and safely. *Wheatley's Garage, 820 S. Floyd St., Louisville 2, Ky.*



# Here's how alert "independents" GET MORE FORDS TO SERVICE



**It's easy when you use  
the parts that Ford owners  
know are right for Fords!**

FORD OWNERS want Genuine Ford Parts when they need replacements. For, not only does it make sense to Ford owners to keep their Fords "all Ford," but an informative, "reason-why" national advertising campaign tells them continuously why Genuine Ford Parts are best for Fords. Millions of Ford owners see the ads in LIFE, SATURDAY EVENING POST, COLLIER'S, LOOK, TRUE, Mechanical and Farm magazines.

Now, all this advertising could work for you, too—if you had a Genuine Ford Parts Oval hanging outside your shop . . . and used Genuine Ford Parts in the Fords you service. Once it's up, you'll attract a lot more Fords and your "stock" of parts is only as far away as your local Ford Dealer.

So clip out the coupon below and we'll tell you just how soon you can have the Genuine Ford Parts Oval working for you!

**Get this  
sign**



Ford owners recognize this sign. And they insist on Genuine Ford Parts wherever they go!

**MAIL THIS COUPON NOW!**

**PARTS AND SERVICE SALES DEPARTMENT**

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.

Please send me complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME \_\_\_\_\_

INDIVIDUAL'S NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

H

## Cleanliness . . . . . Continued from Page 53

were taken into consideration. Dorn tested a new all-purpose paper wiper not so long ago and now uses it for more than 90% of all his wiping needs.

"My wiper costs are down at least 20% since I started using paper," he reports. "This isn't just a guess. My records show it to be a fact."

Until a couple of months ago,

nothing but non-disposable wipers were used for wiping in the service garage operated by Evans Chevrolet Company, Drexel Hill, Pa. All-purpose paper wipers were then given a test and service manager Al DiCicco reports that for certain jobs, such as Powerglide wiping, they were found to be far more efficient because of their lint-free quality.

Lubricators at Alvin A. Swenson, Inc., Philadelphia Ford dealer, also find paper wipers to be ideal for much of the wiping done during a lubrication job. This shop does an average of 40 lube jobs a day.

In the lube room of many modern shops like Swenson's, these paper wipers are becoming more and more popular for cleaning grease fittings and lubrication equipment. They also come in handy when wiping the steering wheel after a lube job is completed. Some shops even leave a clean fresh paper wiper on the front seat for the motorist to use himself if he wishes.

At the service department operated by H. B. Robinson Auto Sales Company, DeSoto and Plymouth dealer, Service manager Joseph Arkatin told of having recently returned from a service training school where they were taught the importance of using nothing but lint-free paper wipers when working on automatic transmissions.

Successful service station operators like Berry Bros., Buick dealer, also know from experience that good windshield wiping pays. Many motorists, in fact, will drive out of their way to patronize a station that takes windshield wiping seriously.

That's why good all-purpose paper wipers are now being used for windshield cleaning at Berry Bros. Since they don't scratch, lint or smudge, they can also do a real job on headlights and tail lights. Attendants at the service station operated by Berry Bros. have found still another reason for using these new paper wipers. They're now used for dipstick tests because the white paper makes dirty oil and sludge readily visible, resulting in customer awareness for the need of more oil changes.

Since cleanliness is essential for the success of any service station or garage, and for the comfort of its attendants, the fact that each paper wiper is fresh and clean is an added reason for their increasing popularity across the country.

Repair shop owners also report improved employee morale when workers are provided with supplies of paper wipers that are ideal for removing grit and dirt.

## THREE STRIKES and you're in!



**STRIKE ONE . . .  
PEDAL "FADE" OR  
COMPLETE LOSS OF PEDAL!**

*That's a Master Cylinder sale!*



**STRIKE TWO . . .  
WET OR DAMP BOOTS!**

*That's a Wheel Cylinder sale —  
possibly a reline job, too!*



**STRIKE THREE . . .  
LINES ARE ALWAYS DIRTY!**

*Sell a cleaning job and refill  
with new Heavy Duty Fluid!*



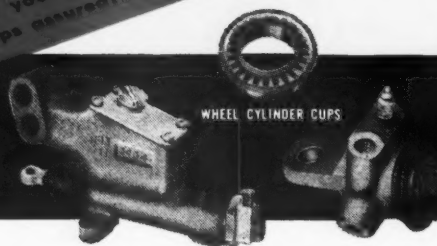
**REPLACE—REPAIR—REFILL WITH**

Check every car that comes in your shop! Six chances out of ten you're in the "clean-up" spot with a profitable brake job on your hands. Don't forget to check Chrysler cars and trucks using chevron-type wheel cylinder cups. Install patented EIS Flexible Rib Cups. They're more efficient — they last longer and cost less. Want to play it safe? REPLACE—REPAIR—REFILL with EIS—The Complete Brake Parts Line! You'll save yourself costly "come-backs" and your customer will be on his way with safe, sure stops assured!

\*Also for all late model Chevrolet, International, Ford, GMC and other trucks — 1942 thru 1954.



**"SUPER 40"**  
(Moderate SAE-R72)  
This brake fluid should only be used for light passenger car duty.



MASTER AND WHEEL CYLINDERS  
AND REPAIR KITS



**"SUPER 50"**  
(Heavy-Duty SAE-R71)  
To be used in all vehicles for safe brake operation under all conditions.

**EIS AUTOMOTIVE CORP. MIDDLETOWN, CONN.**

it's a **PAY CHECK** *stepper-upper!*

**\* Snap-on**

## MECHANICS STANDARD SERVICE SET

Every minute you lose hunting for the *right* tool... each time you're compelled to "make-do" with a misfit... whittles away at your earning power! Here's a set that backs up your own skill and know-how with the fastest, finest tools a man can own. The Standard Service Set was planned by Snap-on to help mechanics *make more money!* Every one of the 166 tools in the set is a basic in handling service operations most frequently met. The big, six-drawer chest keeps them *safe*, and right at your finger tips as needed. Check over the list—then check your own tool kit!



### 166 TOOLS IN BIG 6-DRAWER CHEST

Midget Set in Box  
Feret Set  
Master Supreme Set  
Boxrocket Set  
Dwarf Boxrocket Set  
Open End Wrench Set  
Tappet Wrench Set  
Ignition Wrench Set  
Screw Driver Set  
Spark Test Screw Driver  
Screw Starter  
Phillips Screw Driver Set  
Chisel and Punch Set  
Pry Bar  
Ball Peen Hammer

Plastic Tip Hammer  
Feeler Gauge  
Spark Plug Gauge  
Hack Saw Frame  
Carbon Scraper  
Wire Brush  
Valve Lifter  
Valve Key Replacer  
Valve Spring Compressor  
Ignition Pliers  
Gripping Plier  
Needle Nose Plier  
Diagonal Cutter  
Battery Plier  
Metal Tool Chest

**TALK IT OVER** with your Snap-on Man—it's easy to plan a steady replacement of misfits with Snap-on money-makers! For big free catalog of 4000 Snap-on tools, ask your Snap-on Man, or write

### **SNAP-ON TOOLS CORPORATION**

8036-F 28th Avenue, Kenosha, Wisconsin

\*Snap-on is the trademark of Snap-on Tools Corporation.

**Snap-on Tools**  
THE CHOICE OF BETTER MECHANICS

SET 5166-GS-B



owner come to a specialty shop like ours?" He replies that "in most cases he is a working man. He has only so many hours off—lunch, coffee breaks, etc. During these short off-periods he can have the work done here and be back. Speed. That's what we have to offer—that plus a favorable price, and a guarantee of satisfaction

for the life of the customer's automobile. A guarantee we adhere to rigidly."

Three things help John Rodosta to promise and deliver fast installations. The first is a physical set-up as closely geared to muffler replacement as automotive plants' production lines are geared to the making of cars. Next is a special-

ized crew of technicians. Third is a vast inventory stockpile.

"We do nothing but muffler work, hence we are able to have a completely specialized equipment set-up," John says. "The same could be done, I believe, in a specialty department of an automotive service shop."

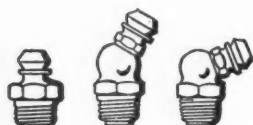
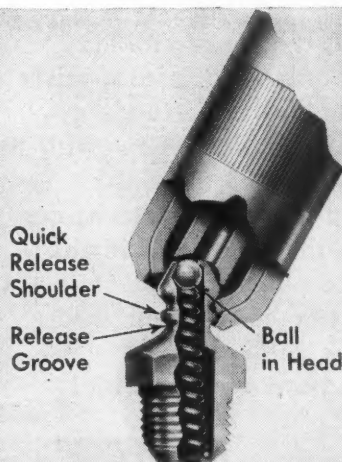
"Since opening the shop, we've given much study to perfecting what the efficiency experts call time and motion factors. We shave a corner off here, figure a more efficient widget there—things that aren't necessarily universal in application but that work for our set-up. Every shop has corner-cutters of its own, geared espe-

## UNIVERSAL

### Grease Fittings

*No Twist Offs—  
No Distortion—  
No Break Offs!*

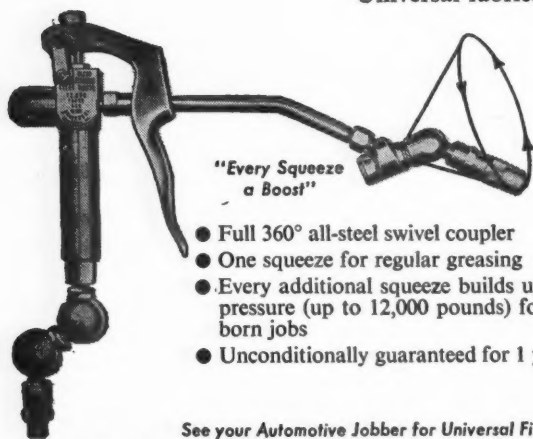
• Quick-Release Shoulder Prevents It!



Universal has a complete line of lubrication accessories

Universal's patented quick-release shoulder prevents damage to fittings because a flick of the wrist is all that's needed to release the coupler from the fitting. No pressure to cut, no valves to work. And the shoulder prevents the coupler jaws from sliding down on the neck of the fitting.

Write today for a copy of our catalog. It furnishes details on the complete line of Universal lubrication accessories.



"Every Squeeze a Boost"

- Full 360° all-steel swivel coupler
- One squeeze for regular greasing
- Every additional squeeze builds up more pressure (up to 12,000 pounds) for stubborn jobs
- Unconditionally guaranteed for 1 year

See your Automotive Jobber for Universal Fittings and Grease Guns. If he doesn't stock them, write

# U

UNIVERSAL LUBRICATING SYSTEMS, INC.

797 ALLEGHENY AVE., OAKMONT, PA.

## UNIVERSAL

### 12,000 Pound Grease Gun

*There's All the Difference in the World in Grease Fittings!*



"Now as I see it, Boss, with your dough and my brains . . ."

cially to its own methods and aims. We've given much attention to finding these and polishing them to perfection."

The equipment includes special racks on which cars are placed, and tools for this job—not general work. Just as important in insuring speed is the question of who does the work. The Muffler Shop's three replacement technicians have trained specially for their jobs. Since they do no other, they can usually—claims Rodosta—perform the job in a fraction of the time a general mechanic would need. "It's like doing any factory operation over and over," he says. "You get pretty adept at it. Training men for specialty work paid off."

No speed is possible if a car has to be shunted aside because neces-  
(Continued on page 80)

# REBORN EVERY YEAR

from the Gay Nineties  
to the Automotive Fifties



In 1900—The old time mixing valve was replaced by SCHEBLER CARBURETORS.

In 1903—The Spur type Differential was introduced by WARNER GEAR. Radiators made of copper tubing with attached cooling fins introduced by LONG.

In 1913—The Single Plate Clutch was developed by BORG & BECK and Silent Timing Chains were introduced by MORSE CHAIN.

In 1916—Universal Joints were developed by MECHANICS.

In 1921—First standard type Transmissions were introduced by WARNER GEAR.

In 1922—Double Plate Clutches were introduced by LONG.

In 1923—Multiple Spring Clutches developed by ROCKFORD.

In 1924—Vibration Dampening Flexible Center Clutches introduced by BORG & BECK.

In 1930—Transmission Synchronizer Units for Cars and Trucks produced by WARNER GEAR.

In 1931—Roller Bearing Universal Joints introduced by MECHANICS. Free Wheeling offered to the industry by WARNER GEAR. Tapered Steel Discs for truck wheels were developed by INGERSOLL.

In 1934—Automatic Overdrives for Transmissions were introduced by WARNER GEAR.

In 1938—Borglite and Torbend Clutch Plates were introduced by BORG & BECK, LONG, and ROCKFORD.

In 1939—Ty-Ply Rubber-to-Metal Bonding material developed by MARBON.

In 1949—Automatic Transmissions were perfected by DETROIT GEAR and WARNER GEAR.

In 1952—MARVEL-SCHEBLER introduced Power Chambers and Hydraulic Power Units for trucks and trailers; LPG Carburetion Systems for trucks, tractors, buses, taxis and stationary engines.

What other industry has imposed on itself so consistently the responsibility for producing new models, better than ever, every year? Certainly none ever set for itself such a pace of self-improvement. Automotive engineers long ago accepted the challenge continually to develop new features of safety, performance and comfort—and it has paid off in continuing public approval. This annual rebirth of youthful vitality has given this fast-growing industry amazing virility and strength.

Organized originally to serve the automotive industry, Borg-Warner has always accepted the urgency of constant improvement—with the result that today, of 20 makes of passenger cars available, 19 employ essential parts of B-W manufacture. This record has been achieved by constant cooperation with car builders since "the old days" when the industry was born.

B-W engineering combined with B-W production will continue to justify your faith in us and in the future of the entire automotive industry.

*Roy L. Ingersoll*  
President

BORG-WARNER CORPORATION



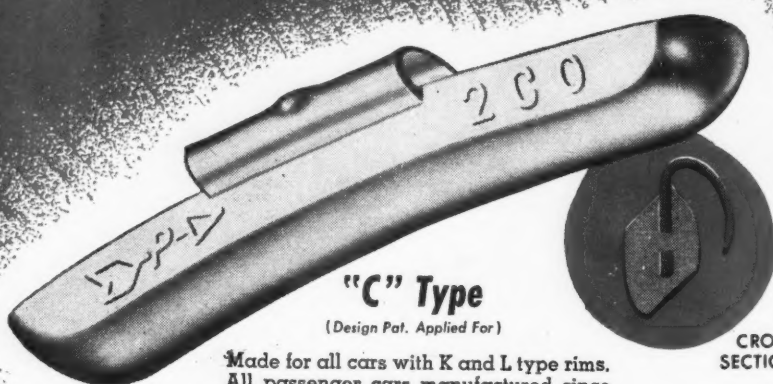
## BORG-WARNER

THESE UNITS FORM BORG-WARNER, Executive Offices, Chicago: ATKINS SAW • BORG & BECK BORG-WARNER INTERNATIONAL • BORG-WARNER SERVICE PARTS • CALUMET STEEL • CLEVELAND COMMUTATOR • DETROIT GEAR • FRANKLIN STEEL • INGERSOLL PRODUCTS • INGERSOLL STEEL LONG MANUFACTURING • LONG MANUFACTURING CO., LTD. • MARBON • MARVEL-SCHEBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • MORSE CHAIN • MORSE CHAIN CO., LTD. • NORGE NORGE HEAT • PESCO PRODUCTS • REFLECTAL • ROCKFORD CLUTCH • SPRING DIVISION WARNER AUTOMOTIVE PARTS • WARNER GEAR • WARNER GEAR CO., LTD. • WOOSTER DIVISION

*more people ride on..*

**PERFECT**

**WHEEL WEIGHTS  
than ANY other**



**"C" Type**

(Design Pat. Applied For)

CROSS  
SECTION

Made for all cars with K and L type rims. All passenger cars manufactured since 1949 have either K or L type rims. Made in the following sizes: 1/4- 1/2- 3/4- 1- 1 1/4- 1 1/2- 1 3/4- 2- 2 1/4- 2 1/2- 2 3/4- 3- 3 1/2- 4-ounce.



**"U" Type**

Fits all passenger cars made before 1949 which had either E or F type rims. Still gives satisfaction on most cars (Not recommended for late model Fords and Mercurys. Use "C" Type for these cars.) manufactured up to present time. Made in the following sizes: 1/2- 1- 1 1/2- 2- 2 1/4- 3- 3 1/4- 4- 4 1/2- 5- 5 1/2- 6-ounce.



**"Special" Type**

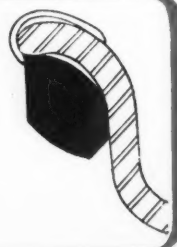
Made for all late model Cadillacs equipped with large chrome hub caps covering the entire wheel. Made in the following sizes: 1/2- 1- 1 1/2- 2- 2 1/2- 3-ounce.



- a BUSINESS "GETTER"**
- a BUSINESS "BUILDER"**
- a BUSINESS "HOLDER"**

The name "PERFECT" means America's Favorite Wheel Weight. It also means Customer Satisfaction. "PERFECTS" are designed right and are made right. "PERFECTS" are streamlined — attractive in appearance and are Precision manufactured to fit any car. EVERY PERFECT weight is Guaranteed to be within 1/32 of an ounce correct. Be sure with PERFECT.

PERFECT's basic principle of 3-point suspension on the rim assures a tight fit that "stays put."



**PERFECT EQUIPMENT CORP.**

804 W. Morgan St.

KOKOMO, IND.

P.O. Box 706

*Manufacturers of Wheel Weights for Trucks and Passenger Cars*

## Silent Service . . .

Continued from Page 73

sary parts are not in stock. To avoid this danger to a high-speed production set-up, Rodosta maintains a vast inventory whose value is in the neighborhood of \$10,000. "That's not small when you consider it's all muffler and tail pipe parts," he grins.

While customers wait for completion of this speedy service, they can relax and read in air conditioned comfort in the waiting room Rodosta has provided. When a man is uncomfortable, John points out, even so short a period as ten or twelve minutes can drag out. "And so we keep them comfortable—and the waiting is shorter."

To promote the service, many advertising media have been tried. "After using TV, radio, direct mail, all of which are good media, we've found newspaper space best for selling this," Rodosta reports. "Our promotional money is now concentrated in a format we've found successful. The ad measures only about two inches, but it appears every day. For attention we run it on the comic pages. It offers auto muffler installation, gives some sample low prices and talks speedy service. It brings them in."

## 1955 Lincoln to Have New Automatic Drive

Lincoln-Mercury Div. will adopt an automatic transmission of Ford manufacture on 1955 Lincoln models. The car has been equipped with the General Motors Hydra-Matic drive but will have a new unit similar in design to Ford-O-Matic and Merc-O-Matic next year. The Division did considerable work toward modifying the Merc-O-Matic transmission to Lincoln requirements last fall when the GM fire shut off its source of supply of Hydra-Matics. However, it apparently did not have enough time to work out the necessary modifications and resumed using Hydra-Matics when they again became available.





# "Our lube jobs include Schrader Certified Air Service"

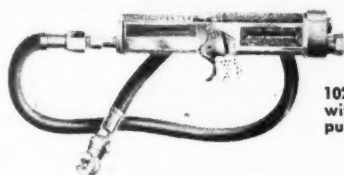


**Schrader Airline Equipment  
Keeps Your Airlines Profit Lines!**

This is what Andrae Bopp of Andy Bopp  
Service Station, Clayton, Mo. says:

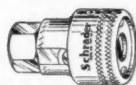
"Our Certified Air Service—which includes proper gauging and inflating with accurate Schrader equipment—is a part of our routine. When the customer's car is on the rack, we gauge all tires. And when he buys gas, he gets the same treatment. That leads to customer confidence, and that means more 'steadies.' I would not feel dressed for work without my Schrader 7750T pocket gauge."

Tune up and certify your air service and all your airline equipment for the coming busy season. Put Schrader Certified Air Service to work for you by using Schrader Products and follow the sales-service suggestions—like the 7750T "dipstick" approach shown in the 4 simple steps in Manual A-200. Write for your copy today.



1020A Chuck Gauge  
with handy "trigger  
pull" action

8052 Coupler  
Check Unit



Adapters



Reliable Air Chucks



5499

# Schrader

REG. U. S. PAT. OFF.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

A. SCHRADER'S SON

Division of Scovill Manufacturing Company, Incorporated  
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

6446

## Trader Types . . . . . Continued from Page 51

he made it down to the used car lot without a wreck. Of course, the customer regains his confidence in his old car when he manages to drive away after getting completely disgusted with Bert's belittling trading tactics.

### Contrasting Charlie

By keeping an eagle eye peeled

for the weak points of a customer's car, Charlie considers himself a shrewd trader. If the tires are thin on the prospect's car and good on the one Charlie is selling, he talks about tires—good tires.

Of course, if the car Charlie is selling needs a new paint job and the customer's car is polished like a freshly minted dime, Charlie

doesn't bother to bring out this contrast.

Trouble with Charlie's trading technique is that he gets his customer to thinking about contrasts. First thing Charlie knows, the prospect is contrasting his car with the other cars and figures he has a pretty good automobile after all. Or, the prospect decides to contrast Charlie's car with cars on another automobile dealer's used car lot.

### Windy Willie

Trade winds (used car trader's wind) may blow the prospect right off the lot. When it comes to talking about the beauty of the used cars he is selling, Willie holds a regular filibuster.

"Yes, sir-e-e-e, Bob, this is a sharp buy. Low mileage—radio, heater, tires, motor and chassis—all perfect. Always had perfect care, never been off the highway, one owner car," and on and on blows this trader's wind.

Willie blows and the customer knows that sooner or later he will run out of breath. While Willie is in this exhausted state, the customer knows that he has the upper hand and he uses it to drive a hard bargain.

Yes, trade winds blow both ways!

### Sly Sam

Sam is a sneaky character that makes customers lose confidence in him, in the used car, and in the dealer's firm. A customer wonders if there is corn meal in the transmission because as the motor turns over, Sam starts up a loud line of chatter to eliminate any noise it might make.

Sam is quick to slide into the car to cover a torn seat cover or a bit of upholstery from the customer's searching eyes. Sometimes Sam is so sly in his dealings that the customer slips one over on him by keeping Sam busy hiding the flaws in the car he is selling rather than giving the customer's trade-in a good going over.

Some of these deals turn out like the horse trader who made a good deal of trading a spavined horse for a blind horse.

### Highpockets Harry

At some time in his career as a  
(Continued on page 86)

This is the way to

get things clean... *FAST*...

at minimum labor cost



Here is the world's best combination for defeating dirt. A Kelite Steam Cleaner (with Kelite Formula 89) will safely clean a white sidewall tire...an earthmover...an oil well...a truck body...a diesel engine...a canning machine. In mere minutes, and without previous experience, you—or anyone—can clean away heavy accumulations of muck or tenacious deposits. Why not see how easy and effective it is to clean the Kelite Way.

Just send for free illustrated Bulletin No. 128 today. Kelite Products, Inc.  
Home Office, 1250 North Main Street,  
Los Angeles 12, California



Offices in 98 Principal Cities and 16 Countries Abroad

PLANTS IN LOS ANGELES—BERKELEY HEIGHTS, N. J.  
CHICAGO—DALLAS—MEXICO CITY

Contains amazing Kelite NU-RE-SOL... Safe on Painted Surfaces... Built-in Scale Inhibitor... No harm, safe on skin and clothing... Exceptional "wetting-out" qualities.

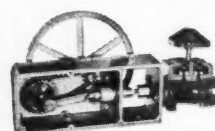
\*an exclusive Kelite development



"Click the switch" and start steam cleaning.



No skill needed. If water supply fails, burner and pump shut off automatically.



Rugged! No flimsy diaphragm here. Heavy duty piston pump with stainless steel ball check valves gives service you can bank on.



Mr. Milton Kaufman, President of Aquatogs, Inc., tells how:

## He makes sales go up in a downpour

"Women, weather and fashion are fickle," says Milton Kaufman. "Put 'em together and you have our business—all-weather garments."

"When a town is hit by heavy rain—especially without warning—the demand for Aquatogs shoots up."

"We call on Air Express, ship and deliver in a matter of hours—and cash in on this peak demand. As you might guess, our customers are flattered by this service."

"We regularly send orders out Air Express every week in the year throughout the country."

"We also depend on Air Express to move goods without a hitch from our door to the retail store receiving room."

"Yet, practically all of our orders cost us less with Air Express than with other air services."

It pays to express yourself clearly. Say Air Express! Division of Railway Express Agency.



# Air Express

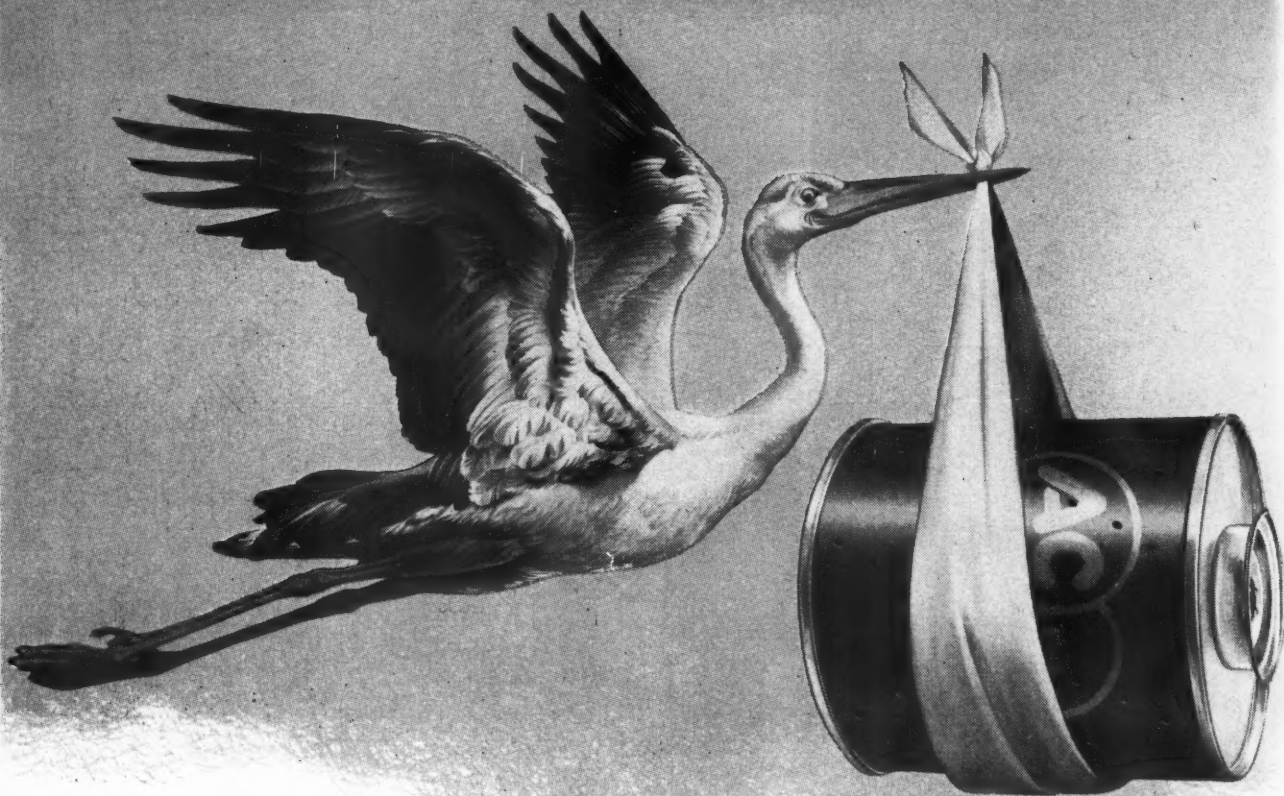


**GETS THERE FIRST** via U.S. Scheduled Airlines

**CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY**



# NEW LIFE FOR



## A TRIPLE ACTION PROGRAM TO HELP YOU BOOST AC OIL FILTER SALES!



On June 15th, AC launches its greatest oil filter advertising and merchandising program. From many angles, and at many levels, it will stress the fact that a new AC Oil Filter will bring "new life" to any car's engine. From outdoor poster boards spread across the country . . . from the pages of national magazines . . . from window trims and mystery handout cards . . . this great AC campaign will make a powerful impression upon millions of motorists.

A program of this tremendous size and scope cannot help but stimulate sales. All you need do is add the efforts of yourself and your staff and you'll ring up extra filter sales all summer long! Check with your wholesaler's salesman to make sure you're registered for this great AC program.

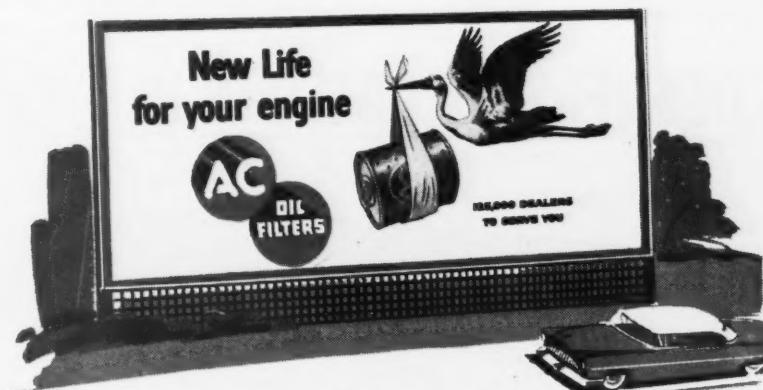


AC SPARK PLUG DIVISION GENERAL MOTORS CORPORATION  
FLINT, MICHIGAN

# SUMMER SELLING

## *NEW large-scale action-arousing National Advertising!*

This AC campaign is *all* new . . . new idea, new approach, new appeal. All the big national and farm magazines — as well as outdoor posters from coast to coast — will carry the "New Life for Your Engine" theme. The posters, strategically spotted in more than 4,500 locations, will be seen by 63 million people — and the magazine ads will have a potential readership of more than 80 million individuals during the campaign period.



## *NEW action-starting Point-of-Sale promotion!*

This unusual window trim, displaying an actual oil filter element, is sure to attract attention and arouse interest. It "hits" the customer at the very time he is most susceptible to suggestion, and it paves the way for a successful sales talk. Each dealer will also receive a quantity of unique cards to hand out or mail to prospective customers. These "mystery messages" tie in perfectly with the rest of the program and will provide a potent sales punch. Both items are sent to registered AC dealers without charge.



## *AC's exclusive new action-getting Dipstick Tag!*

The most direct sales approach ever offered in the oil filter industry! When attached to your customer's engine oil dipstick, it tells you when the oil and oil filter were last changed and serves as a constant reminder for repeat sales.

48 AC dipstick tags are supplied to you **FREE OF CHARGE** as soon as you register. With each shipment of 48 tags, a return post card order blank is enclosed which entitles you to an additional 48 tags **FREE**.



## Trader Types . . . . . Continued from Page 82

used car salesman, Harry discovered that most people want a lot of money for their old cars. After he discovered this fact, Harry always has a technique of making a deal. He starts high on the trade-in offer he makes his customers. If the Blue Book on the customer's car is \$900, Harry starts out at \$1,200 and with a little urging on the part of the customer he will

move on up to perhaps \$1,400.

Then, when it comes to making the final deal, Harry adds the extra trade-in allowance he gave to his customer on to the price of the car he is selling. In theory, Harry's system sounds good. In practice, however, it is apt to backfire on him. The customer will get Harry overextended and get such a high offer for his automobile that it is

impossible to make up the difference on the automobile the customer starts considering.

For example, Harry may make the customer an offer of \$1,400 for a car with a Blue Book value of \$900. Then the customer starts trading for another car that is worth about \$500 and when the \$500 over-allowance is added to this, it is hard to make a deal. Harry realizes this and if he can't swing the customer to a better automobile, finds that he has given the customer some of his boss' money.

These are just a few of the modern horse traders found on some automobile dealers' used car lots. They are in the minority, but one of these characters hanging around a lot can lose enough sales and customers for a dealer to make him think his entire used car sales crew is a bunch of characters.

**Solution:** If you find that you do have any of these trader types selling for you, there are several things you can do. *First*, you might let the salesman read this article to see if he can spot his own

# DELIVERS 35 GALLONS PER HOUR!\*



## New Stewart-Warner SUPER ELECTRIC FUEL PUMP

**Performance-Proved!** This worthy "big brother" to the famous Stewart-Warner model 110N Electric Fuel Pump is the ideal pump for heavy-duty trucks and buses.

**Improved Motor Design** gives greater efficiency, cooler operation. At full capacity, the new SUPER PUMP operates at only 250 strokes per minute—far fewer than ordinary pumps. Special fast-breaking switch points eliminate arcing, pitting and burning. The result is longer life.

**No Pistons—No Rotating Parts!** The new SUPER PUMP is the only electric

fuel pump using the diaphragm pumping principle. Operating independently of the engine, it works *only* when carburetor needs fuel . . . saves wear, saves current.

**Instant Starts In Any Weather**—no vapor lock. Fuel is delivered under pressure the instant you turn the ignition key. Stepped-up pressure means higher efficiency.

Hard-hitting national advertising is pre-selling this new SUPER Electric Fuel Pump to your customers now. Contact your Stewart-Warner distributor today.

You'll know the new Stewart-Warner model 220A SUPER Electric Fuel Pump by its bright green enamel finish.

\*or more—unrestricted flow

## STEWART-WARNER

Instrument Division  
Dept. FF-64, 1840 Diversey Parkway, Chicago 14, Ill.



weak trading tactics. *Second*, if the character you want him to notice is not illustrated or he doesn't get the idea, you might act it out when he asks for a raise. *Third*, you might fire him . . . and get another just as bad.

As a general rule, however, most used car salesmen who have any of these bad trading tactics, will spot them themselves . . . and knowing the trouble is more than half the battle for improvement.



## **NO OTHER BATTERY** **OFFERS SO MUCH**

✓ **To You**

✓ **To Your Customers**



## **FOR THE LIFE-LONG BATTERY with 10 YEAR BONDED GUARANTEE**

Big national advertising campaign is now telling the American public the whole story about Life-Long Batteries.

Here's the battery you've been reading about . . . the battery the public is clamoring for! No wonder—independent laboratory tests prove the *Life-Long Battery*, based on a European invention, gives 300% greater output (up to 2000 AMPS instant energy release) than other nationally-advertised batteries; has tremendous self-recharging ability; withstands sub-zero temperatures to 70° below.

### **Easy to Prove the Superior Recuperative Powers of the Life-Long Battery**

Here is a simple test you can make to prove to yourself and to others the amazing recuperative power of the Life-Long Battery. Install the Life-Long in your car the same as any other battery. With the ignition switch off and the headlights on, step on the starter until the battery is so run down it won't crank the engine, light the lights, or even blow the horn! Now wait one minute with headlights switched off, then step on the starter. The Life-Long Battery will start your engine instantly with a surge of power it has regained during that sixty second interval!

***We'll pay anyone \$1,000 cash if he can prove to us that a new Life-Long Battery won't pass this test!***

### **Consider These Cold Figures**

Some franchise territories still are open in the U. S., Alaska and abroad for distributors to sell *Life-Long Batteries* to service stations, garages and other retailers. Or you can sell direct to car-owners as a retail dealer if you prefer. *Either way, there's a big profit-margin for you!*

Many distributors are buying *Life-Long Batteries* in carload and half-carload lots. Some have ordered three and four times in less than 60 days after receiving their first order. Many are selling over a thousand batteries a month with gross profits exceeding \$10,000.

### **Protected Territories Available**

Life-Long dealers and distributors are given closed and protected territories. If you are interested in an exclusive Life-Long Franchise for your area, mail the coupon below for complete information, including offer of

***Free Demonstrator Battery!***

**LIFE-LONG Battery Mfg. Corp. Dept. MA64**  
11766 W. Pico Blvd., Los Angeles 64, Calif.  
Telephone Arizona 8-3210

Please send complete information on Life-Long Battery, including free demonstrator battery offer.

I would like to be a: ☐ Dealer ☐ Distributor

Name \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**LIFE-LONG BATTERY MANUFACTURING CORPORATION**

Cable: Life-Long

11766 W. Pico Blvd., Los Angeles 64, Calif.



## Arc Welders . . . . . Continued from Page 57

any height or drop anything on it. If the armature appears to be jammed, do not force any moving parts but inspect or dismantle to determine the cause of the trouble. The control box cover or canopy hood should be kept on at all times to forestall dropping anything into the unit that might cause electrical or mechanical damage.

When installing electrically driven welders, always ground the set and use adequate power input cables. The line should be fused at two to three times the rated motor current.

Another installation detail which is frequently the source of inefficient welder operation is the matter of loose electrical connections. Before operating the set, check cable connections at the control panel and at the electrode holder and group clamp. Be sure to have a good ground. Weak arc, unstable arc and generally unsatisfactory arc operating characteristics will result from loose cable connections.

Dirt is the worst enemy of machinery. It will attack a welding unit in many ways and the principal effort in maintenance should be directed against the effects of dirt. The large volume of air drawn through a welder for ventilation is one source of danger. Air-borne dust and abrasive materials will collect in the air passage and clog ventilation, causing overheating. Metallic dust will also collect around coils and constitute a potential source of coil failure. Abrasive dust will cause commutators to become grooved and pitted and will accelerate brush wear.

Where machines are subject to ordinary dust conditions, good maintenance practice calls for blowing out the complete unit once a month with clean, dry, compressed air. Where conditions are severely dusty, the cleaning should be more frequent. Air pressure should not be so high

that the force of the air damages the insulation or windings.

Where cast iron or steel dust is present in the air, the welder should be cleaned out with vacuum equipment, as blowing with compressed air tends to drive the metallic dust into the windings. If vacuum equipment is not available, use compressed air at re-

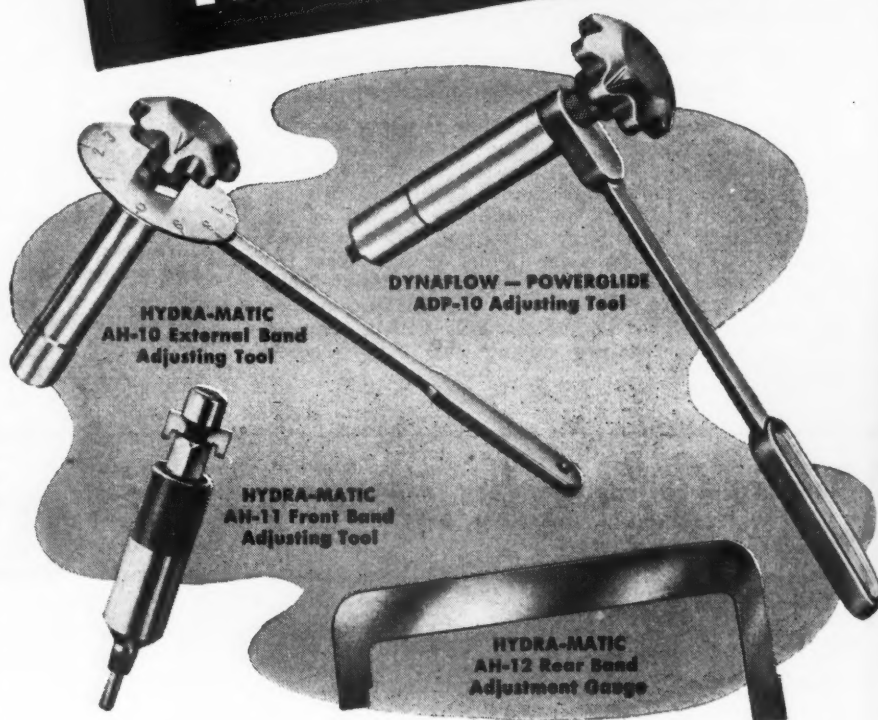
duced pressure.

If the coils of the welder become clogged with greasy dirt or mud that cannot be blown out, disassemble the unit and clean the coils with naphtha gasoline. After loosening dirt with naphtha, blow out with compressed air. After cleaning, it is good practice to paint coils with an air drying insulating paint.

Dirt is also a great enemy of bearings. It is responsible for more bearing failures than any other cause. Dirt may be intro-

## ARE YOU GETTING THE BIG MONEY

### SERVICING AUTOMATIC TRANSMISSIONS.



THE NEW BRITAIN MACHINE CO. • NEW BRITAIN, CONN.

duced to the bearing through the grease cup when the cap is removed for greasing, or it may be in the grease itself. Wipe grease cups clean before greasing and keep the grease container clean and covered at all times. A particle of dirt no larger than the period at the end of this sentence, and which might be floating around in the air, can cause bearing failure.

Keep the magnetic starter clean. An accumulation of dirt and dust around the starter can cause the

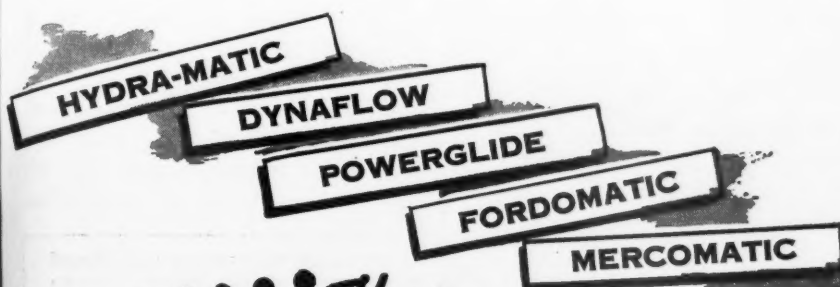
line voltage to jump between phases and burn out the starter. Keep the entire control box clean. Check all insulation in the control box to be sure it is clean and in good condition.

The first maxim of good welder maintenance is—protect the source of power. The line voltage at the welder should be up to that voltage specified on the nameplate. The motor-generator welder (with its DC arc) does not vary in output with varying line voltage (where the other type sources

of welding current do) and while the m.g. set will operate satisfactorily with the line voltage plus or minus 10 per cent of that specified, it is better to keep line voltage up.

Electric motor maintenance is fairly simple. Ample fuse protection against single phase conditions is essential. The motor should also have thermal protection against overload and overheating. Keeping the motor clean by blowing out with compressed air and greasing bearings once a year is about all the periodic maintenance that is needed.

A welding machine will absorb a lot of punishment and continue to operate. Rough handling and mechanical abuse, however, are hard on a unit and take something out of the life of the machine. Eventually the breakdown point is reached. Proper handling and operation will add many years of useful service to its life.



## These New Britain TOOLS PUT YOU IN BUSINESS

Designed especially for quicker, easier servicing of increasingly popular automatic transmissions, this new Family of famous NEW BRITAIN Tools makes it easy for you to make big profits in this fast-growing field. For Hydra-matic transmissions: the AH-10 for external adjustments; the AH-11 and AH-12 for internal adjustments. For Dynaflow and Powerglide: the ADP-10. For Fordomatic and Mercomatic: the AF-10 for front bands; the AF-11 for rear bands. Each Tool packed complete with illustrated instructions for use.

These few basic Tools actually open up an automatic transmission service department for you . . . let you take advantage of today's big money-making opportunity. Ask your Jobber about these new Tools today. See how easily you can earn profits in this exciting new field.



# New Britain

GREATER STRENGTH • BETTER FIT **HANDTOOLS**



Welders are not recommended for use on any continuous load duty. In operating a machine on a steady load for such work as thawing water pipes, supplying current for lighting, running motors, charging batteries, or operating heating equipment, it is not always possible to control the load conditions and, as a result, the welder is overloaded and damaged before any indication of danger is noticed.

If, however, operation of a welder under steady load condition is unavoidable, do not set  
(Continued on page 90)



welder output at the machine's rated maximum capacity. The maximum output on steady load should be no more than 80 per cent of the rated capacity. For example, a machine with a duty cycle of 60 per cent and a NEMA rating of 300 amp. and 40 volts, or 12 kw., should not be used for any continuous load greater than

9.6 kw., and not more than 240 amp. At the start of such a load the voltage rheostat should be set at its minimum. Machines with lower load factor rating must be operated at still lower percentages of the rated load.

Most welding machines are designed and made with a considerable margin of safety in the op-

erating factor, but the machine should not be worked over its rated capacity. In other words, just because a welder rated at 200 amp. will produce 280 amp., it does not follow that it should be used to do the work of a 300 amp. unit. Operating above the rated capacity in welding causes overheating, which destroys the insulation and may melt soldered connections in the commutator.

The electrode should never be left grounded to the work while the machine is running. This causes the worst possible overload condition. Grounding the electrode creates a "dead short" in the welding circuit and the machine is forced to generate much higher currents than that for which it is designed.

Proper greasing is very important. Any type of bearing surface should be greased often enough to insure a film to avoid friction.

**Prosperous times and hard times both have drawbacks. If the wolf isn't at the door, the tax collector is. Changing Times**

Even a double shielded ball bearing, as used on the best motor-generator welders, should be greased once a year. Good practice is to add one ounce (one cubic inch) of good grease to each bearing annually.

Grease used should be about the consistency of apple butter and should be checked periodically to be certain it has not turned rancid. Bearings should not be opened for inspection as they are sealed against dirt. Inspection should be made by listening for any unnatural noise. A screw driver held against the housing and against the ear makes a convenient tool for listening to bearings.

If it is necessary to pull a bearing, a special puller should be used. A properly constructed bearing puller draws against the inner race of the bearing only. Do not wipe, grease or otherwise clean new bearings taken directly from a sealed carton. Always drive them on by hitting against the inner race.

(Continued on page 94)

**ACCO**  
products

## Manley Presses

*"Our MANLEY Press  
Paid for Itself in 9 Months' Time.  
Now it gives us a good monthly profit"*



**MOVABLE HEAD**  
Travels on rollers

**ADJUSTABLE HANDLE**  
Set it and work from any position

**AUXILIARY PRESS**  
Handles light jobs independently

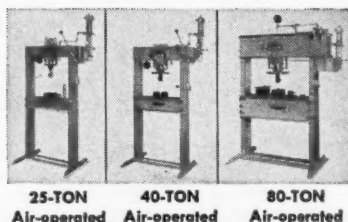
**MANLEY New Hydraulic  
60-TON PRESS**

**TABLE RAISING  
MECHANISM**  
Cable operated and self-locking

## Here's How You Too Can Make Money with a Manley Press

• Hundreds of shop owners are making good money on their MANLEY Presses, like the garage man quoted above. With a MANLEY Press you save the time of a man delivering and picking up the work from somebody else. And . . . you save the profit the other shop has to make. You will bring other work in, too, if you have an efficient, easy-to-use MANLEY Press.

MANLEY Presses are made in 25, 40, 60, and 80-ton capacities for manual or air operation. Features such as bolted construction, open design, self-locking table, positive ram control which can't be overloaded make a MANLEY Press your best buy.



### MAIL TODAY!

**MANLEY DIVISION**  
American Chain & Cable, York, Pa. MA  
Please send literature and prices of \_\_\_\_\_ 25-ton, \_\_\_\_\_ 40-ton, \_\_\_\_\_ 60-ton, \_\_\_\_\_ 80-ton MANLEY Hydraulic Presses, and name of nearest distributor.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Town \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**ACCO** **Manley Division**  
**AMERICAN CHAIN & CABLE**  
York, Pa., Chicago, New York, Portland, San Francisco, Bridgeport, Conn.  
*The Best Equipped Shop Gets the Profitable Business*



See Buick Shop Manual, Page 375,  
for Recommended Procedure

**Tune your Buicks  
for summer travel  
with  
BUICK  
FACTORY ENGINEERED  
parts**



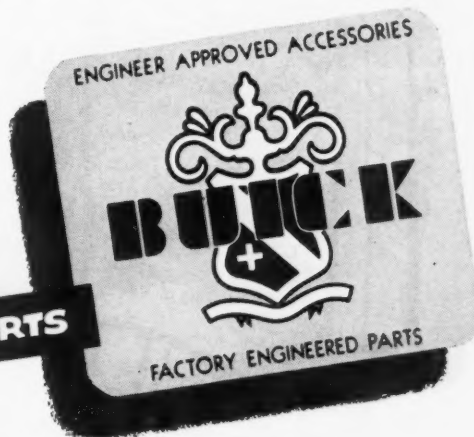
**BUILD YOUR REPUTATION FOR BETTER SERVICE** by installing Buick point sets, condensers, spark plugs and generator repair kits with recommended procedures.

**YOUR BUICK OWNERS WILL BE PLEASED** and you'll benefit by the profit from discounts, timesaving convenience and customer satisfaction.

**BUY BUICK PARTS FROM YOUR BUICK DEALER** for summer tuning—and all other Buick service jobs.

Did You Know that point sets open and close 137 times  
a second at 50 mph in the 200-hp Buick CENTURY?

**BETTER WORK WITH  
FACTORY ENGINEERED PARTS**

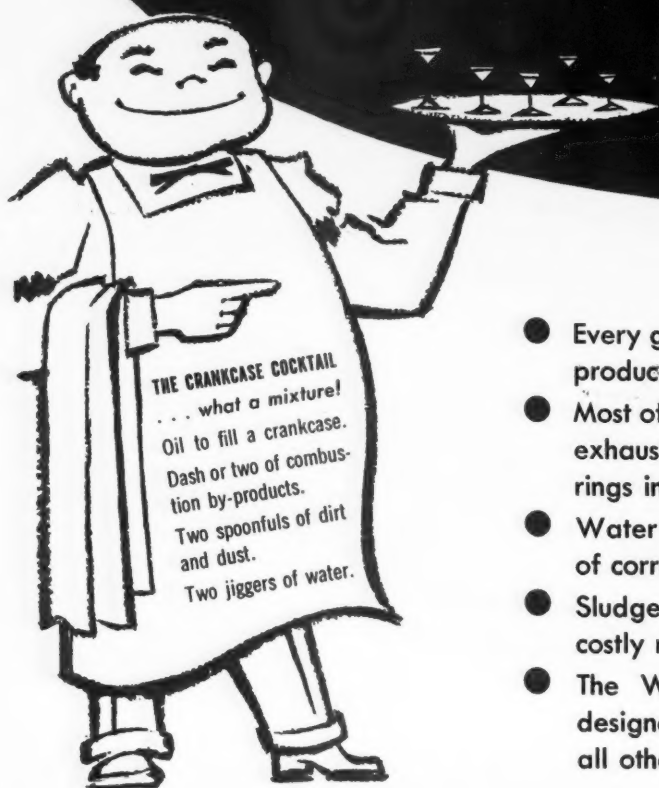


**SEE YOUR BUICK DEALER**

*Cash in on the Crankcase Cocktail with this*

**WALKER OIL FILTER**

# 30-Second Sales Story



**TIME IT YOURSELF!**

- Every gallon of gasoline burned in an automobile engine produces more than a gallon of water.
- Most of that water evaporates or passes out through the exhaust. But some water always blows by the piston rings into the crankcase oil.
- Water in the oil is the chief cause of sludge and source of corrosive acids.
- Sludge and acids cause poor engine performance and costly repairs.
- The Walker Oil Filter is the one filter specifically designed to guard against crankcase water and against all other dangerous oil contaminants.





**W**ATER IN THE OIL from combustion blow-by is the "kick" in the Crankcase Cocktail, the destructive mixture that threatens 9 out of every 10 motorists. And that 30-Second Sales Story points up the threat so fast . . . so clearly . . . the motorist has only one answer—a Walker Oil Filter.

Use the 30-Second Sales Story. You'll find it makes sense and sales of Walker Oil Filters. And remember, no matter what kind of filter you find on a car, there is a Walker Laminar Cartridge to fit it.

To help make sales for you, Walker Oil Filters are advertised in **LIFE** where 26,000,000 people see the exclusive Walker "waterproofing" story. Walker Oil Filters and **LIFE** make a great sales-building team for you.

Find out all about the distinctive Walker Oil Filter. Get in touch with the Walker distributor nearest you . . . or contact Walker direct at Racine, Wisconsin. Do it today!

## WALKER OIL FILTERS

WITH PATENTED *Laminar* CONSTRUCTION

*Guard Against  
Crankcase Water*



WALKER MANUFACTURING COMPANY OF WISCONSIN, RACINE, WIS. • OIL FILTERS • EXHAUST SILENCERS • JACKS

Chilton's MOTOR AGE, JUNE, 1954

The bearing housing may become worn oversize from the pounding of an armature that is out of balance. Remove brackets by tapping lightly around the outside diameter of the bracket ring with a babbitt hammer. Check the bearing housing for fit by trying a new bearing. A new bearing should slide into the housing with

a light drive fit.

Armatures should be kept clean to prevent them from becoming unbalanced. The armature should be cleaned thoroughly with compressed air by attaching a long pipe to the compressed air hose and reaching with the pipe inside the armature coils. Commutator solder and armature banding

should be closely inspected to check for evidence of overheating.

Commutators normally need little care. They will build up a surface of brown copper oxide which is highly conductive, hard and smooth. This surface film helps to protect the commutator. Do not remove it simply to keep commutator a bright copper color. The brown copper oxide film prevents the formation of a black abrasive film that has a high resistance and causes excessive wear. As long as the commutator remains smooth the only care needed will be an occasional wiping to remove grease and discoloration from fumes.

If, however, brushes are chattering from uneven bars, or high mica segments, or if grooves become worn in the commutator or it is burned or pitted, the commutator should be dressed down with a commutator stone or removed and turned in a lathe. Emery cloth should never be used. It is good practice for the commutator to run within a radial tolerance of 0.003 inches.

The mica separators in the commutator should be undercut to a depth of 1/32 or 1/16 in. Mica exposed at the commutator surface causes brush wear and poor commutation. If mica is even with the surface, undercut it with a hack saw blade or a commercial undercutter.

When the commutator is in good condition and set properly, there is very little visible sparking and the brush surface is shiny and smooth with no evidence of scratching.

In all cases, use the brush recommended by the manufacturer of the welder. The wrong grade of brush may affect commutation, output and even ruin the commutator.

Brushes should be replaced when the pigtails are within 1/8 in. of the commutator or when the limit of travel of the brush spring is reached. New brushes must be sanded in to conform to the shape of the commutator. This may be done by either stoning the commutator with a stone or by

(Continued on page 96)

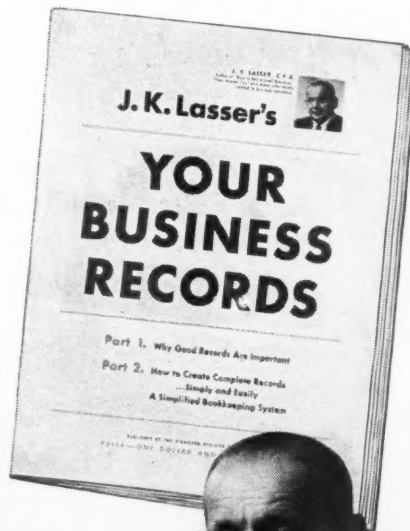
## NEW BOOK TELLS HOW TO PROTECT YOUR BUSINESS AGAINST:

### *Tax Suits! Fraud! Cash Loss!*

As a business man, are you *sure* you have adequate records to protect yourself in an income tax examination? Does your business record system guard your business against possible embezzlement, and unexplained cash losses? Do your records give you the ready information you need for good business management? If you can't answer "yes" to those three questions, you'll want this new book by J. K. Lasser, famous tax expert and management consultant!

In his new book, "Your Business Records," Mr. Lasser explains simply how to avoid tax troubles and business losses, and cites typical examples of losses caused by inadequate records. He also shows you how to set up a low-cost, easy, system of record keeping that will prevent these losses.

Don't wonder if your present records protect you! Send the coupon and get the facts on today's business record needs!



J. K. LASSER, C. P. A.  
Author of "Your Income Tax" and  
"How to Run a Small Business"

## Standard Register

BUSINESS FORMS



Paperwork Simplification

*Mail  
Coupon  
Today!*

THE STANDARD REGISTER COMPANY  
100 Campbell Street, Dayton 1, Ohio

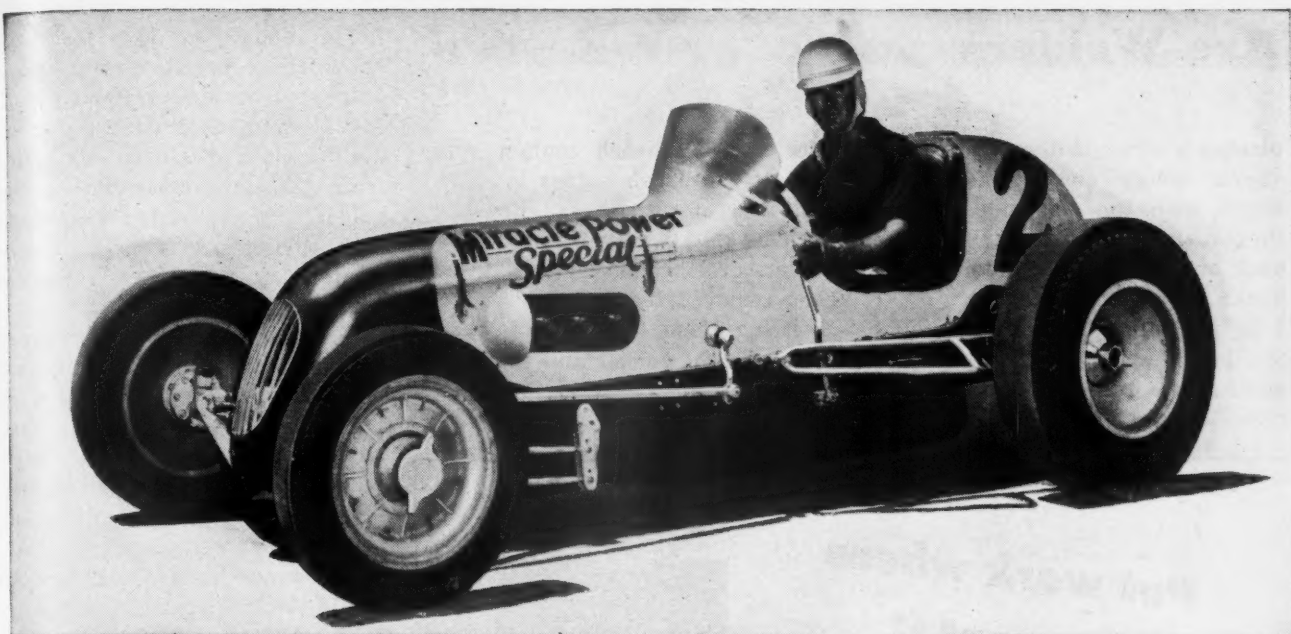
I would like to know how to obtain a copy of J. K. Lasser's new book, "Your Business Records," without charge.

NAME \_\_\_\_\_

BUSINESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_



## "How I Keep My Car in Condition"



Duane Carter uses Miracle Power in his passenger car to improve performance and prevent Dry Starting, major cause of engine wear. Here's what he says: "It takes oil several minutes to reach all vital engine parts right after starting. But a light, tough film of Miracle Power is always there, preventing dry metal-to-metal contact. Miracle Power has saved me a lot of repair bills."

Impartial road tests by an independent laboratory proved an engine with Miracle Power was using 33% less oil, had 13% more compression, 56% longer spark plug life, 49% less cylinder bore wear, 15% less ring wear.



Re-builders and others treat vital parts with "push-button lubrication"—dgf-123 for dry pre-lubrication, Miracle Power for wet. Neat and easy... just press the button!



Miracle Power is now available in large size containers for use in gas and oil every 1000 miles, and in smaller cans for more frequent use as a top cylinder lubricant.

by DUANE CARTER

International Racing Champion

Believe me, I've got to be sure of everything I use in my racers! I can't afford to have anything go haywire.

I experimented with a lot of products claiming to help oil lubricate better before I found one—Miracle Power—that *does* it. I've used it ever since.



The secret is that Miracle Power contains super lubricants including colloidal synthetic graphite in suspension. It lubricates upper cylinder areas after parts get so hot that oil burns off. You know, oil burns at 550° and even passenger car engines may hit 1400° in top cylinder areas.

Miracle Power sticks on all friction surfaces... saves wear on bearings, cylinder walls, rings... keeps valves and lifters working right. Take it from me... Miracle Power makes *any* car run better.

### There's Gold in Those Miracle Power Cans!

When you sell Miracle Power, here's your annual profit potential per 100 cars—

9,000 miles average per year... 900,000 miles

Two cans Miracle Power

every 1,000 miles..... 1800 cans

1,800 cans at 85c..... \$1,530 gross

Your profit..... \$612 NET!

ORDER FROM YOUR MIRACLE POWER JOBBER TODAY!

Miracle Power Division  
**THE AP PARTS CORPORATION**

1532 AP Building • Toledo 1, Ohio

Manufacturers of  
MUFFLERS • PIPES • MIRACLE POWER • dgf 123

© The AP Parts Corp., 1954



placing a piece of fine sand paper (never emery cloth) under the brush with the grit side facing the brush and moving the paper back and forth while holding the brush firmly against it.

In replacing brushes see that the brush springs seat squarely against the brush and that pig-tails are fastened securely. Be

sure that the brush contact surface of the brush holder is clean and free of pit marks. Brushes must be able to move freely in the holder. If brush holders have been removed from the rocker, in resetting them be sure they are square in the rocker and that the brushes are parallel to the mica segments in the commutator. The

holder should be 1/16 to 1/8 in. above the commutator surface.

Inspect brushes regularly for: (1) Uneven wear caused by uneven spring pressure; (2) Chips from excessive clearance in the holder; (3) Excessive wear from high spring pressure, high segments, uneven bars or abrasive dust.

All starter contact fingers should make contact simultaneously. Keep the fingers free from deep pits or other defects that will interfere with a smooth sliding contact. Copper fingers may be filed lightly. Deeply pitted fingers should be replaced.

All connections in the control should be maintained and kept tight. All cable connections on the output panel should be tight. Loose connections are not only a

**Put work where  
you want it  
with a  
LEE END LIFT**



LEE END LIFTS help speed completion of all types of service with resulting lower labor costs since work is placed exactly where you want it.

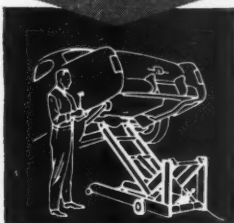
This versatile one end lift goes to the job — indoors, outdoors, upstairs or basement. The LEE END LIFT holds work at a level best suited to the mechanic; avoids fatigue; gets more jobs done per day. Raises either end of car up to 53". 3000 lb. capacity. Stores in 2 ft. sq. 5500 lb. cap. TRUCK LIFT also available. Write for Bulletin 201.



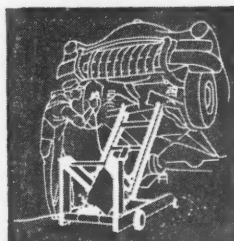
**AUTOMOTIVE  
EQUIPMENT MFG. CO.**

11000 SOUTH ALAMEDA STREET  
LYNWOOD, CALIFORNIA

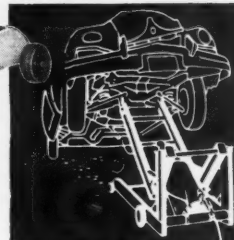
for each specific job



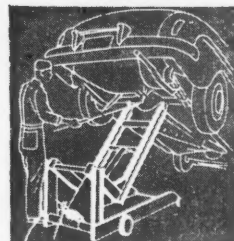
BODY & FENDER



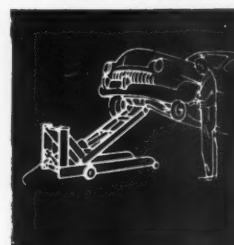
PAINTING AND UNDERCOATING



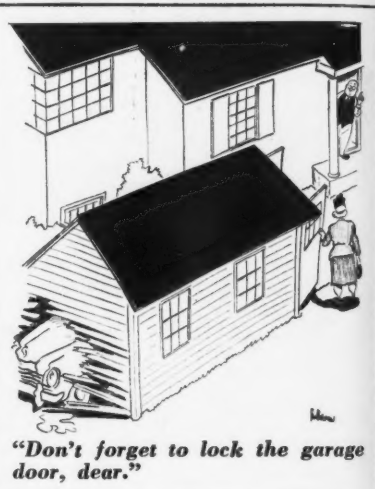
UNDER-CAR REPAIRS



STEAM CLEANING



BRAKE & WHEEL SERVICE



source of loss of current but can start to arc and be the source of considerable damage.

The following preventive maintenance inspection is suggested to be performed once a month. It is based on an assumption of average operating conditions. If it is impossible to maintain this schedule with the crew available, many authorized field service shops with factory trained men have this type of preventive maintenance available on a contract basis. A service contract will be more than worth the investment in the returns received by efficiently operating equipment.

## Generator or Electrical Maintenance

1. Blow out and clean entire
- (Continued on page 98)

# "Commercial Credit has always stood by its dealers"...

says **MR. C. B. SMITH**, President of  
"CB" Smith Motors, Dodge-Plymouth  
dealer of Austin, Texas.

*Buy your New*  
**DODGE or PLYMOUTH**

*through us on the*  
**COMMERCIAL CREDIT CORPORATION**  
**BUDGET PLAN**

"**COMMERCIAL CREDIT** has been a  
fixture here since we opened up for business.  
With only one year's retail experience but 12  
years association with two of the "big three"  
automobile manufacturers, I was convinced  
the **COMMERCIAL CREDIT PLAN** afforded the

dealer the best service and protection for his  
financing and insurance requirements. That  
was back in 1943. If I were to choose again  
today, I'd still select **COMMERCIAL CREDIT**.  
They make a real contribution to any dealer's  
business."

**COMMERCIAL CREDIT DEALERS ARE Successful DEALERS**

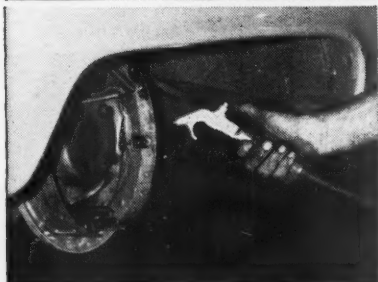
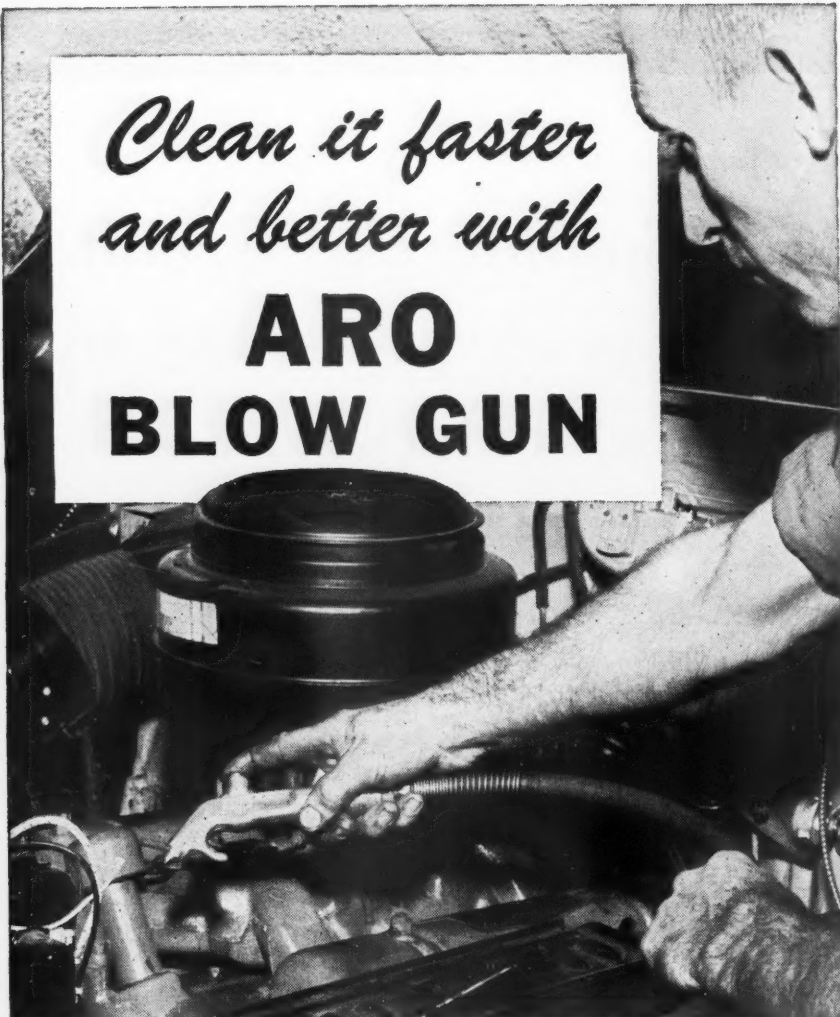
Let us show you how **COMMERCIAL CREDIT's** broad experience, large resources and complete  
financing facilities can contribute to your success. Write, wire or phone your nearest  
**COMMERCIAL CREDIT** office today. You'll get prompt action.



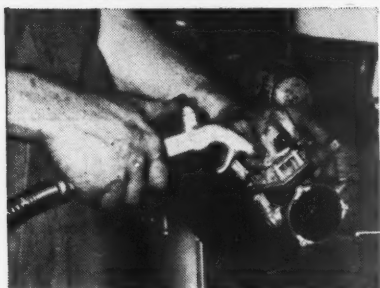
**COMMERCIAL  
CREDIT  
CORPORATION**

A service offered through subsidiaries of  
**Commercial Credit Company, Baltimore**  
... Capital and Surplus over \$145,000,000  
... offices in principal cities of the United  
States and Canada.

*Clean it faster  
and better with*  
**ARO  
BLOW GUN**



*Handy for brake drum cleaning.*



*Blow-cleaning a carburetor.*

*Cleaning jobs "under the hood". ♦*

New ARO Blow Gun Model 7444 delivers air blast with absolute control—whisper or BLAST—for cleaning operations in service stations, garages and car dealer service departments. Throttle valve meters air exactly—just press for more pressure.

*Saves labor . . . reduces costs* for cleaning out brake drums . . . battery terminals . . . distributors . . . carburetors . . . gas lines . . . generator brushes . . . car interiors . . . tires and under fenders . . . many more uses.

See your ARO Jobber

**THE ARO EQUIPMENT CORPORATION, BRYAN, OHIO**

Aro Equipment of Canada, Ltd., Toronto 1, Ontario

®

**ARO**

**LUBE EQUIPMENT**

Also...AIR TOOLS...AIRCRAFT PRODUCTS...  
GREASE FITTINGS

## Arc Welders . . .

Continued from Page 96

generator unit.

2. Inspect and adjust commutator brushes on both exciter and main generator commutators.
3. Inspect, clean if necessary, armature and commutator.
4. Clean starter contacts.
5. Examine bearings and grease at proper intervals.
6. Examine all external electrical connections and condition of welding cables.
7. Check machine for proper welding operation and control of current range.

### Final Check

After all adjustments have been made, the unit should be checked for operation. An arc should be struck with the controls set at minimum and the current output checked with a tong meter. The welder should also be set at maximum and a reading taken. An electrode should be run off without interrupting the arc to check for arc stability and other welding characteristics.

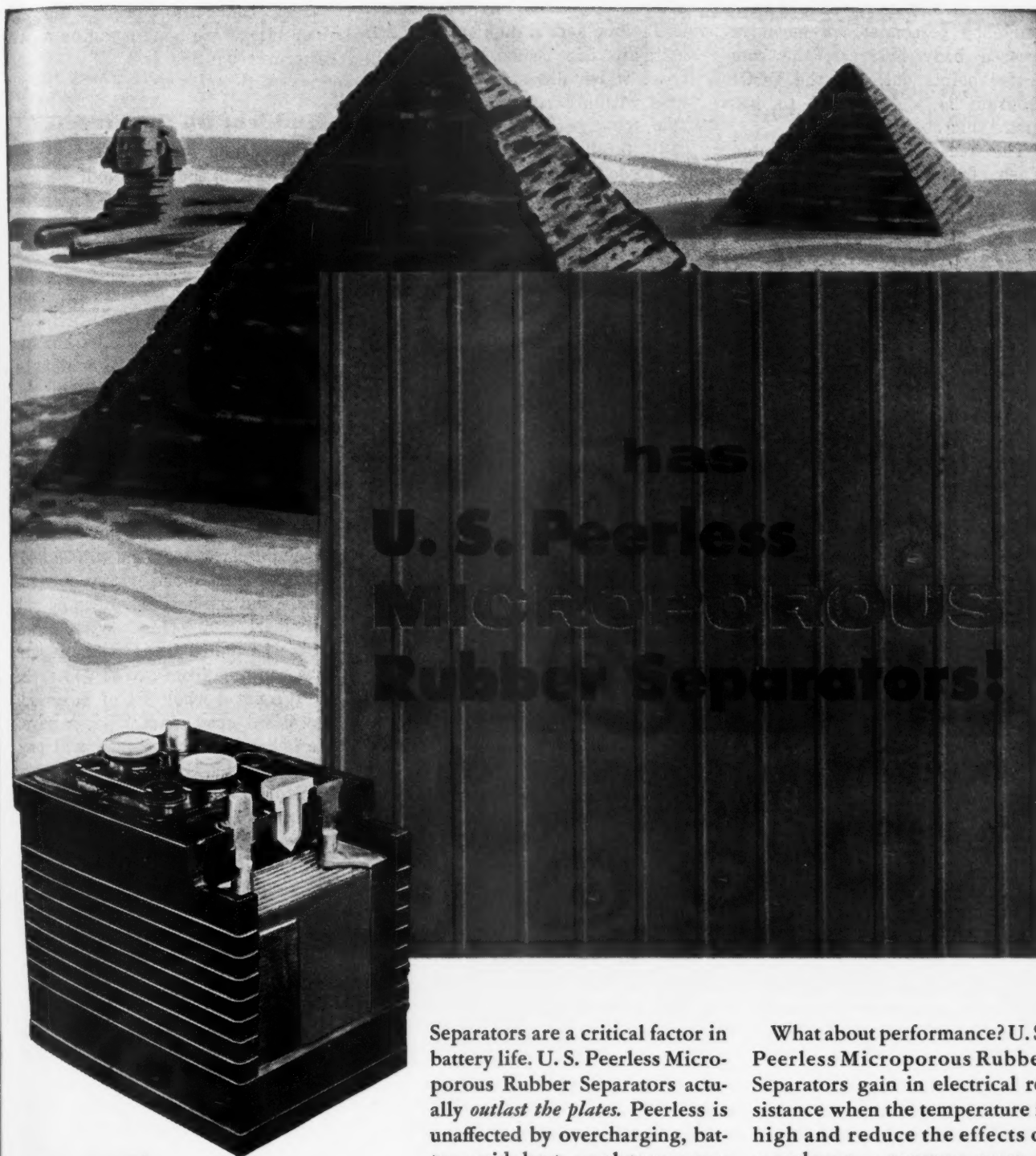
If a meter is not available, the output of the welder may be checked by measuring the number of inches of electrode melted off in one minute of welding. This melt-off rate as measured can be compared with charts available in procedure handbooks and from electrode manufacturers. The check will only be approximate but it is satisfactory for a preventive maintenance check.



**NATIONWIDE CAR CARE SCHOOLS** for women are being sponsored by Alemite. Here some of the 'students' learn about tire care in the service department of Commerce Motors, Cleveland, Ohio.



# The battery that ENDURES



has  
**U. S. Peerless  
MICROPOROUS  
Rubber Separators!**

Separators are a critical factor in battery life. U. S. Peerless Microporous Rubber Separators actually *outlast the plates*. Peerless is unaffected by overcharging, battery acid, heat, or plate pressure and will not get mushy or soft in service. Not even a broken plate can cut through them. They are unbeatable in prolonging battery life in rugged duty.

What about performance? U. S. Peerless Microporous Rubber Separators gain in electrical resistance when the temperature is high and reduce the effects of overcharge, a common cause of battery failure. *When the temperature is zero*, they permit 20% faster cranking speed, 10% more starting power. That's because of the high porosity of Peerless.



Write to address below for free copy of informative booklet on the high-performance, low-upkeep U. S. Peerless Rubber Battery Separators.

## UNITED STATES RUBBER COMPANY

Electrical Wire and Cable Department • Rockefeller Center, New York 20, N. Y.



Chilton's MOTOR AGE, JUNE, 1954

## Don't Goof-Doof

Continued from Page 59

Concentrated effort on the part of service managers, shop owners and shop personnel can mean increased body business, the committee points out, and the DOOF program is a "natural" to help hustle this business.

The record shows: A Renton, Wash., firm increased its business 333% through an all-out DOOF

campaign which was continued after June, 1953; a Woonsocket, R. I., shop kept a duplicate of each estimate tag issued, followed up those which did not produce business within a certain time, and is able to say its body business is "15% higher than ever before"; a Toledo, Ohio, shop increased an already flourishing business 5 to

7% through an active DOOF program.

Norman's success hinges on his statement that "we don't wait for cars to come into the shop for an inspection—we hang a tag on a car wherever we find it."

### Find 'em On the Street

Body shop business doesn't always walk in the front door—sometimes it's a good idea to go out on the street to get it.

That's the reasoning behind a new system of body repair estimating developed by Milt Roper, body shop foreman at the Seaberg Buick Co. in Pasco, Wash. Roper has designed an estimate card which he uses during slack periods in the shop for making repair estimates on the street.

In about an hour of wandering around the streets of Pasco, Roper can check the repair costs on 9 or 10 cars. He fills out the estimate card and places it in the windshield.

Roper started the system only recently and the first few days he put out nearly 100 cards. Within two weeks he pulled in 11 extra repair jobs ranging from \$10 to \$45 each.

"It's not a whole lot of business, but it's a good start," Roper says. He believes that the idea will pay better dividends in the future.

"Many people think that straightening out a small fender dent costs a lot of money and they seldom want to take the time to come in the shop for an estimate on minor body repairs. This is a good way to promote business for the shop and it is a service to the public, too."

Roper averages from 2 to 5 cars a day in the Seaberg shop. He hopes that the card system will boost it to 7 or 10 daily.

Starting out with his own body shop on a \$400 investment 7 years ago, Roper continuously expanded his business and sold it for \$30,000 about 5 years later. In the few months he has been with Seaberg he has upped the body shop volume by more than 25 per cent.

A factor in his success has been his insistence on personal attention and service. He checks every job before it leaves the shop and all jobs costing more than a few dollars include a free car wash.



Welded grillwork provides low cost protection for truck front. Grillwork fabrication and body repairs with "Lincwelder" speed customer service.



Reinforces axle. Steel strap incorporating turnbuckle is fillet welded to rear axle housing at spring. Car or truck can carry heavier loads.

## "LINCWELDER" handles more service jobs ...to boost your profits

**Y**OUR costs are less . . . profits are higher on every welding job when you use the "Lincwelder" DC-250-MK for welding frames, axles, bumpers or doing light body work. Here's why:

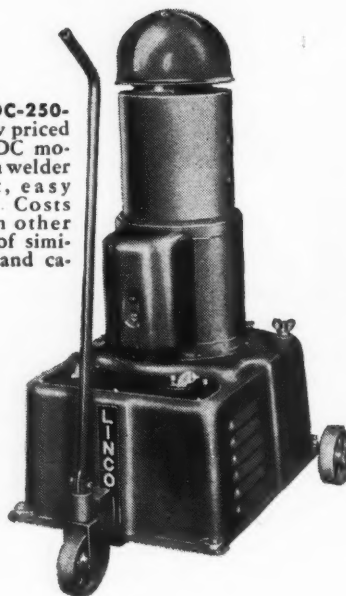
**1. Versatile** "Lincwelder" welds all metals . . . steel, cast iron, bronze, stainless, aluminum.

**2. Simple to Weld.** "Lincwelder's" Dual Continuous Control provides unlimited combinations of *type* of arc and arc *intensity*, for every job. Insures top quality welds for any position . . . flat, vertical or overhead to cut your costs.

**3. Wide Range.** 40 to 250 amps. Handles thin body metals or heavy frames and axles.

Have your Lincoln representative show you how to save time and money with "Lincwelder". Or write for free Lincoln Bulletin 1332.

Lincoln DC-250-MK . . . low priced Lincoln DC motor driven welder for fast, easy welding. Costs less than other welders of similar type and capacity.



### THE LINCOLN ELECTRIC COMPANY

Dept. 4004 • Cleveland 17, Ohio

THE WORLD'S LARGEST MANUFACTURER OF ARC WELDING EQUIPMENT



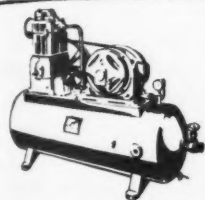
**PAINT SPRAY GUNS**  
13 different models



**GUN NOZZLES**  
for paints and coatings  
of all kinds



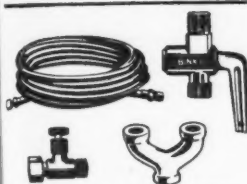
**SPRAY GUNS**  
for applying heavy materials



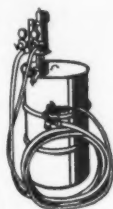
**AIR COMPRESSORS**  
60 models 1 to 105 C.F.M.



**AUTO SPRAY BOOTHS**  
standard panel  
construction  
21 models



**HOSE AND ACCESSORIES**  
12 types of hose  
all accessories



**MATERIAL  
HANDLING  
PUMPS**  
9 models



**OIL AND  
WATER  
EXTRACTORS**  
7 models to supply  
clean, dry air



**MATERIAL  
TANKS**  
2 to 60 gallons



**EXHAUST  
FANS**  
21 models—  
each meeting  
safety  
standards



**FLOCKING GUNS**  
Fitted with 1 quart cup

# Everything

## FOR SPRAY PAINTING and COATING

# Binks


**the complete, 1-source line  
of integrated equipment**

Here is everything you need for auto re-finishing, touch-up and reconditioning—precision spray guns for factory-quality finishes...flocking units for trunk compartments and interiors...car washing guns...guns for engine cleaning...heavy-duty units for applying under-coating, etc.

You have more than 1,100 *standard* Binks products from which to choose—all designed to work together—assuring you of the right equipment for every type of automotive work.

Normally, all Binks products can be shipped immediately by your local jobber. You save time, money and effort when you standardize on Binks integrated equipment.

**BINKS MANUFACTURING COMPANY**  
3124-34 West Carroll Ave., Chicago 12, Illinois

Representatives in Principal  
U. S. & Canadian Cities.  
See Your  
Classified  Directory

# Binks

*tell me  
more...*

**about Binks complete,  
integrated line of spray  
painting and coating  
equipment.**

**We are especially  
interested in:**

- ☐ Complete Spray Painting System
- ☐ Paint Spray Guns
- ☐ Flock Guns
- ☐ Flow Guns
- ☐ Oil Guns
- ☐ Touch-up Guns
- ☐ Car Washing Guns
- ☐ Heavy Material Guns
- ☐ Foundry Guns
- ☐ Automatic Guns
- ☐ Blow Guns
- ☐ Engine Cleaners, Extensions, etc.
- ☐ Air Compressors
- ☐ Material Handling Pumps
- ☐ Hose and Accessories
- ☐ Spray Booths
- ☐ Exhaust Fans
- ☐ Oil and Water Extractors
- ☐ Material Tanks
- ☐ Automatic Spraying Equipment
- ☐ **We would like to see your representative**

**Mail this coupon today to:**  
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3124-34 West Carroll Avenue  
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ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_

STATE \_\_\_\_\_



## Office Files . . . . . (Continued from Page 49)

It is also a big time saver (and avoids near duplication) to keep a subject file list handy for filing where one can see at a glance the existing folders in the file or main divisions and specify placement of new information in the proper spot.

One of the biggest headaches is the lost data in anyone's filing cabinet. Usually this situation was

brought about originally because the item lent itself to filing under two or more headings. One was chosen. Later we needed the information under a related heading and could not locate the item. Setting up a subject file list helps spot the item in the proper place.

Another method in wide use is to keep a 3x5 card file and make separate cards for each such sub-

ject with a notation thereon where the item has been placed. Still another method is to make such notations on small pieces of paper as to where the item has been filed and place each of these in related folders. This permits us to obtain wider usage from the material in our filing cabinet without duplicating this material.

It's also a good idea to follow these rules in preparing any material for filing:

1. Remove all paper clips.
2. If papers are torn, mend them with scotch tape.
3. Check material carefully to see if it can be divided into different headings for more efficient use.

Where more than one person uses the firm's filing system it is advisable to maintain control over material taken from the file. Any system used should show where the information has been taken and by whom. Having such a sys-

*When you stock*  
**GABRIEL**  
*You make the sale!*



The 1954 line of Gabriel Shock Absorbers is matchless by reason of its outstanding broad coverage. No matter what ride control problem confronts you, Gabriel has the right answer with the right shock absorber. Gabriel is the only complete line of shocks, anywhere . . . for passenger cars, trucks, buses and trailers.

**HYDR-O-SHOX**  
With all the popular Gabriel extras . . . and, popularly priced, too!

**SILVER E**  
Largest of all passenger car shock absorbers, for heavier cars, station wagons, and light trucks.

**ADJUST-O-MATIC**  
Newest member of the Gabriel family, can be adjusted to provide the ride you like for the road you ride.

**HEAVY DUTY**  
World's finest shock absorber for trucks, buses, and trailers.

**THE GABRIEL TWINS**  
These attractive, colorful wire displays, each holding 12 Gabriel Shock Absorbers, will enable you to cover 70% of the shock absorber replacement market with a minimum investment. Includes wire rack, installation instructions, specification sheets, and sales helps.

**50TH ANNIVERSARY**  
1904 - 1954

**THE GABRIEL COMPANY**  
CLEVELAND 15, OHIO



tem impresses personnel with the importance of taking care of filed material and promptly returning it to its proper place.

This may be done with a card the size of the file folder to be signed each time data is taken from the cabinet and inserted at the place where the folder was removed. Small sign-out slips may be used and placed in the folder. There should be such a system, however, to force responsibility; otherwise carelessness results in material being tucked away in corners all over the building.

(Continued on page 104)

**START RIGHT  
WITH WHITE**  
for today's light shades!



Get best results  
**WITH FEWER  
TOP-COATS!**

## Prime and seal with **OPEX® PRIMER-SEALER WHITE** ...the sealer that tints

Top-coats on modern cars are becoming lighter and brighter. Why struggle to put coat after coat of light finish over dark sealer and then, perhaps, not exactly match the original factory finish?

Start right with *white!* Save time, effort, materials . . . with OPEX Primer-Sealer White P1W 23—the sealer that tints! It's a ground coat especially designed for use before finishing with white or *any* delicate color . . . helps you get best possible results with fewest top-coats. Color cast of the top-coat color can be easily obtained by adding a small amount of OPEX Lacquer Mixing Color.

OPEX Primer-Sealer White primes bare metal, seals down old lacquer or synthetic surfaces—in a single operation. It has the same outstanding properties of sealing, holdout, adhesion and bond that have been built into the popular OPEX Primer-Sealer gray and dark oxide colors. Don't let dark undercoats slow down your shop operations. Get OPEX Primer-Sealer White from your Sherwin-Williams "OK" Automotive Jobber today!

WHITE PRIMER SEALER	LIGHT GRAY PRIMER SEALER
ONE LACQUER TOPCOAT	ONE LACQUER TOPCOAT
TWO LACQUER TOPCOATS	TWO LACQUER TOPCOATS
THREE LACQUER TOPCOATS	THREE LACQUER TOPCOATS

### White Sealer saves extra time and work

Panels above show how true, light top-coat color is obtained faster and with fewer top-coats over OPEX White Sealer than when dark sealer is used.

Ask your Sherwin-Williams "OK" Automotive Jobber about it or write for name of the "OK" Jobber nearest you. The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio.



# SHERWIN-WILLIAMS

**AUTOMOTIVE FINISHES**



## Office Files . . . . . Continued from Page 102

Filing costs mount when we are careless with procedures, for that results in waste of materials and supplies, use of unnecessary expensive filing cabinets and expensive space. Eliminating the use of clips and other bulky fasteners (by keeping all papers in folders loose) helps reduce the need for such space.

Every dealership filing cabinet

contains much "dead data" which should be retained. Such information may be referred to only once a year, yet it fills up the working cabinet. Storage or transfer files (made of heavy cardboard and very inexpensive) avoid this situation. They can also be kept in out-of-the-way extra space.

Spending a few moments in going through the main file about

every six months will spot such material and keep the working cabinet less crowded and easier to use. Notations may be made of such transferred material and kept in the working file to avoid unnecessary trips to the storage area.

It is also a good idea to have one individual in the office responsible for all filing. That assures easier location and adherence to one system. Where everyone can file there will be a score of individual interpretations of even one system and material can easily become lost. It's the old adage about "too many cooks spoil the broth" applied to office operation.

It is also advisable to have a definite list of "things not to be placed in the filing cabinets" to avoid their becoming catch-alls and thus reducing the efficiency for which they were designed. Many objects such as booklets (to cite one example) can be filed better on a shelf than in a cabinet.

Filing a number of odd sized records, forms or other information in a single cabinet can also result in chaos. Where there is a sufficient volume of such material we will be ahead in the long run in providing separate storage facilities to fit the odd size or bulkiness of the data. The good file is neat and orderly (it has to be in order to be efficient) and anything

*"Why is Mr. Knight pacing up and down?"  
"He's worried about his wife."  
"What's she got?"  
"The car."*

we can do to keep it that way makes it more practical and useful.

The smaller the dealership the wider the practice of regarding its filing system as of little importance. Due to infrequency of its use this may be true, BUT on that one occasion when it is vitally needed such a practice can prove disastrous.

Keeping a good filing system is easy and inexpensive; and it returns a worthwhile reward in reducing overhead costs as well as assuring the dealer that whenever he may need something in a hurry it is immediately available for his use.

## Again from

# BONNEY

## NEW TOOLS FIRST!

New models bring new service problems. And Bonney is first with the new tools you need to lick these problems. Here are new Bonney Tools specially designed to speed maintenance and repair jobs on 1954 Fords, Mercurys, and Lincolns:

No. 6511

### BONNEY DISTRIBUTOR WRENCH

●For use on 1954 Ford, Mercury, and Lincoln overhead valve engines. This specially designed wrench reaches right down between the distributor and the firewall to loosen or tighten the locking cap screw which clamps the distributor in place. Helps make fast work of timing these engines.

No. 2617

### BONNEY CYLINDER HEAD WRENCH

●Easily reaches bolts obstructed by valve rocker-arm shaft and exhaust manifold on 1954 Ford V-8 engines. Designed for use with torque wrench or other attachments.

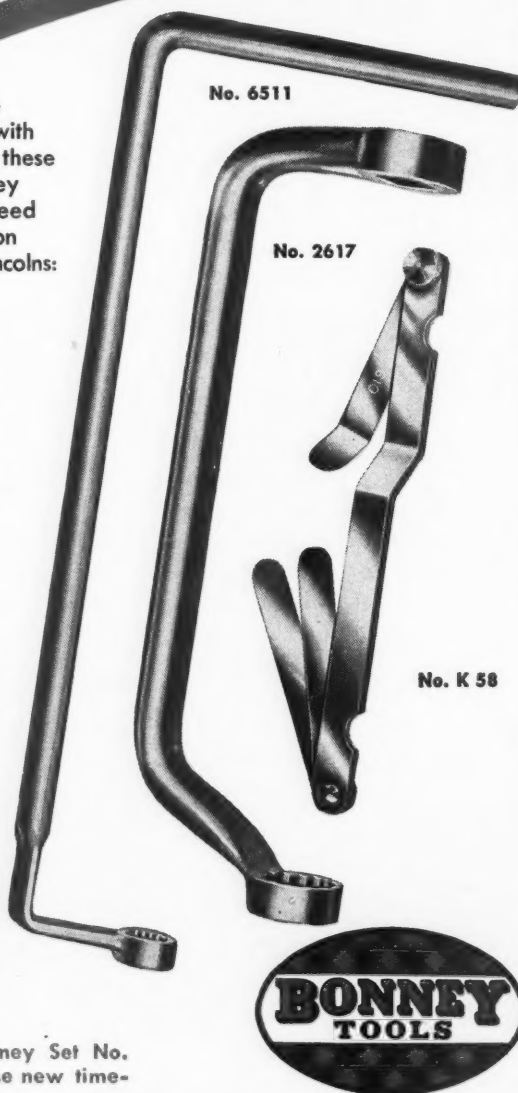
No. K 58

### BONNEY FEELER GAUGE

●Includes both straight and offset blades. The .019 offset blade is included for setting intake and exhaust valves on 1954 Ford V-8 and Mercury engines. Straight .016 blade is for setting intake valves on the 1954 Ford 6-cylinder engine. Exhaust valves on the Ford 6 are set with the straight .019 blade.

Ask your jobber about Bonney Set No. N200 which includes all these new time-saving tools.

BONNEY FORGE & TOOL WORKS • ALLENTOWN, PA.







WE'VE CERTAINLY  
BUILT UP OUR  
**SALES and  
PROFIT**  
SINCE TAKING ON  
BUFFALO'S UNIVERSAL  
HEADLIGHT REPLACEMENT  
UNITS!

# BUFFALO HEADLIGHT REPLACEMENT UNITS

WILL MAKE  
MORE MONEY FOR **You!**

## 3 BIG REASONS

- 1 Buffalo Universal Headlight Units cost you less than any other leading makes. There's at least \$2 extra profit for you every time you sell a Buffalo Unit!
- 2 Buffalo's Universal Headlight Units fit 85% of all cars that come into your shop for repairs! You carry less inventory and you get rapid turn-over. You don't tie up money or shelf space!
- 3 Buffalo Universal Headlights are fully complete Units — nothing more is needed. With Buffalo's five Units (that you can buy in a packaged deal) you can take care of 85% of all headlight replacement jobs and make extra profit on each one! Body Shop charts showing interchanges available on request.

**DEALERS!** The extra profit you make on the Buffalo Universal Headlight gives you an "edge" on competition. Buffalo means the difference between getting and losing business, the difference between profit and loss on close-figured jobs. If your Jobber doesn't stock Buffalo Universal Headlight Replacement Units send coupon below to us today!

### SEND US THIS COUPON!

Automotive Parts Division,  
Buffalo Weaving & Belting Co., Alliance, Ohio

My Jobber doesn't stock Buffalo Headlight Replacement Units.  
His Name is: \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

My Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

Here are two of the five units in the Buffalo Universal Headlight Replacement Line. Unit at top is for General Motors Cars. Unit at right fits the Chrysler Line. There's at least \$2 more profit in it for you every time you sell a Buffalo Headlight Unit!



AUTOMOTIVE PARTS DIVISION  
**BUFFALO** WEAVING and  
BELTING CO.

ALLIANCE, OHIO  
JOBBER INQUIRIES INVITED

## Highlights . . . . . Continued from Page 40

conventional tire and tube assemblies. These tires do not offer puncture-sealing construction nor do they have the special form of tread design featured on extra priced tires. On the other hand, they do retain some of the safety features of the higher priced tires such as longer mileage, improved riding quality, and a greater mea-

sure of protection against blow-out.

Tire companies, therefore, have removed the major hurdle to adoption as standard equipment—price. With tubeless tires priced as the same level as conventional equipment, motor car producers can approach their adoption with much more enthusiasm.

## NOTHING LIKE IT FOR PERMANENT PROFITS!

*Customers stay sold on*  
**PENNZOIL** ONLY motor oil with **Z-7**

FULL POWER  
INGREDIENT  
BUILT RIGHT IN!

**UNLOCKS  
HORSEPOWER**

Your customers  
feel the difference  
with the first  
crankcase fill!



**Cash in NOW!**  
Send for details to  
**THE PENNZOIL COMPANY**  
OIL CITY, PA.

© 1954, The Pennzoil Co., Member Penn. Grade Crude Oil Assn., Permit No. 2

Meanwhile, during the past few years the motor car companies have had ample opportunity to test the new tires and satisfy themselves as to their safety and durability. It will be recalled that last year Packard was the first—and only—manufacturer to offer tubeless tires as optional equipment across the board. Packard has had signal success with this experiment and unquestionably will continue tubeless tires as optional equipment.

Apart from price, motor car engineers view tubeless tires much more favorably this year because of some added advantages. Principal one is a redesign of tread to provide freedom from hum or

**There are enough motor vehicles in the U. S. to carry the nation's entire population at one time, with enough space left for all the people of Italy.**

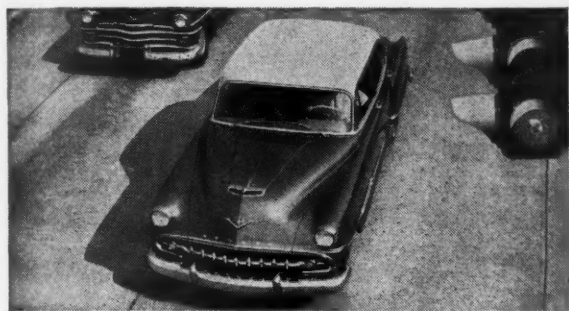
squeal—a publicized feature of conventional tires offered on 1954 models. The other is greater life and durability. One of the tire makers claims his new product will have 25 per cent more mileage.

It is also a matter of fact that tubeless tires can be mounted on the standard rims, thus making it feasible to offer them as optional equipment without affecting installation either on production lines or in the field. The only exception to this is in the case of wire wheels. Here there is the problem of making rims absolutely leak-proof when they are manufactured. There is little doubt, however, that this can be readily solved by the several wire wheel producers.

This report is not intended to leave the impression that tubeless tires will be adopted by all makes; nor that those who do adopt them will offer them as standard equipment. Judging by the course of events, however, it is safe to say that tubeless tires have arrived and it is only a question of a little time before they will have the status of standard equipment across the board.

Five obvious reasons  
why the  
**DeSoto**  
**AUTOMATIC**

is your best buy for  
style, safety, and performance



**GREAT GETAWAY!** You really take off—with all the power built into the world's most modern engine design—the Fire Dome V-8—partnered with the PowerFlite fully automatic transmission (newest, smoothest, finest of all no-clutch drives!).



**FINGER-TIP CONTROL!** You just guide a DeSoto Automatic. Full Time Power Steering works every second you drive, eliminating 80% of the effort of steering and turning. Snubs out road shocks. Makes parking as easy as dialing a telephone!



**UNMATCHED STABILITY!** Rugged, bigger-than-ever frame gives you solid, road-hugging heft. Oriflow shock absorbers melt the bumps... make the rough spots disappear from any road. And No Sway Ride Control for curves and corners!



**STUNNING BEAUTY!** From the commanding grille to swept-back fenders, there's a look of graceful elegance that makes people stop and stare... a look of harnessed power that makes them want to get in and drive. Interior tones are blended with the body color for over-all harmony.

Put yourself in these pictures, then put yourself behind the wheel. Discover the finest optional power features in the industry. And discover why DeSoto is such a *beautiful* way to go places—with the style-pacing look to its rich fabrics, handsome appointments, deep-pile carpeting.

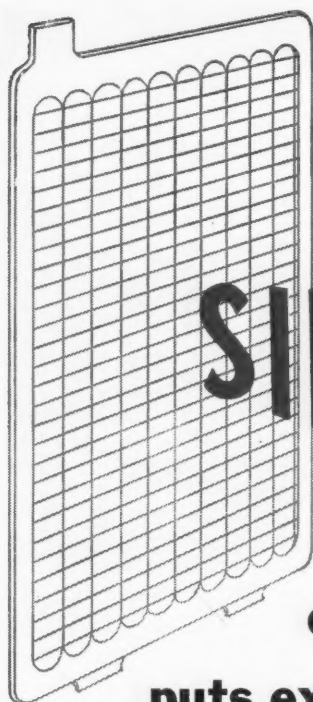
There's a mighty Fire Dome V-8 or Powermaster Six awaiting your appraisal today. See a DeSoto dealer now! DeSoto Division, Chrysler Corporation.

**DeSoto** puts you ahead  
*...automatically!*

DE SOTO-PLYMOUTH Dealers present **GROUCHO MARX** every week on both RADIO and TELEVISION... NBC networks.

Chilton's MOTOR AGE, JUNE, 1954





# SILVIUM<sup>®</sup>

**cuts grid corrosion . . .  
puts extra months and miles  
in Exide ULTRA START Batteries!**



**EXIDE's** corrosion-fighting grid alloy, **SILVIUM**, puts an entirely new slant on how long a battery can really last! **SILVIUM** shackles the most destructive enemy of batteries—grid corrosion caused by overcharging. With **SILVIUM**, an Exide patent, the life of **ULTRA START<sup>®</sup>** Batteries is multiplied. Actual operating records show 90,000 . . . 100,000 . . . even 170,000 miles without a recharge!

No matter what batteries you now handle, be sure you have **ULTRA START** for your customers who want longer, power-packed performance at the lowest battery cost per mile. You can sell Exide **ULTRA START** with a guarantee backed by 66 years of business integrity. Get full details now from your Exide Distributor. He's listed in the classified phone directory. If you prefer, contact us direct.

**Exide AUTOMOTIVE DIVISION**  
THE ELECTRIC STORAGE BATTERY COMPANY  
Philadelphia 2, Pa.

*Exide Batteries of Canada, Limited, Toronto*

**Exide<sup>®</sup>**  
**BATTERIES**

## Vuky Wins Again....

Continued from Page 47

his Hinkle Special. His car is a brand new Kurtis Kraft 500C with the engine offset.

Drivers and mechanics agree that the new tires by Firestone account for at least 3 to 4 miles per hour more speed at qualifying. This new tire has three ribs instead of the previous two. Drivers can really take their cars through the turns.

Another interesting development is the use of Pop (nickname for nitro) fuel. This nitro methane is a colorless liquid which will explode when subjected to 2000 lbs. pressure or 500 degrees Fahrenheit. This was used by quite a few of the late qualifiers to increase their lap speeds about two miles per hour. Mixtures varied from 5 to 40% blended with alcohol.

Using this nitro fuel had its drawbacks too. After the cars had qualified and the engines were



torn apart, then different cars showed up with cracked crankshafts. These 270 cubic inch engines were designed to rev up to about 4500 rpm and with the "pop" they were turning close to 5500 rpm.

The new KK 500C roadster chassis, Kurtis' latest design, was one of the feature attractions of the track. With the tubular construction, the driver said that the car really handles beautifully.

(Continued on page 114)

THEY'RE  
**pre-cut**  
**to exact**  
**size!**

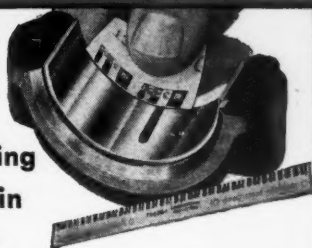


Restore bearing clearances quickly...accurately...correctly with

## PERFECT CIRCLE TAPER SHIM bearing adjusters

Check bearing  
clearances in  
 $\frac{1}{3}$  the time  
with Perfect Circle's

### PLASTIGAGE



The sure way to more profitable  
engine overhauls

#### PERFECT CIRCLE POWER SERVICE

1. (a) **WEAR GAUGE**—quick, accurate check for top groove wear.  
(b) **MANULATHE**—regrooves worn top grooves.  
(c) **STEEL TOP RING GROOVE SPACER**—restores correct top ring side clearance and retards top ring and groove wear.
2. **PERFECT CIRCLE 2-in-1 CHROME PISTON RINGS**—more than double the life of cylinders, pistons and rings.
3. **NURLIZING**—restores worn pistons to original fit.
4. **PLASTIGAGE**—checks bearing clearances easily and accurately.
5. **TAPER SHIM BEARING ADJUSTERS**—assure correct bearing clearances in main and connecting rod bearings.

Over 7 million sold...and not a  
single failure reported!

You'll save time and get improved performance with Perfect Circle Bearing Adjusters. They're *pre-cut* to exact specifications, and *tapered* in thickness toward each end for correct radial fit. No hand-cut shim can compensate accurately for excessive main and connecting rod bearing clearance...but Taper Shim Bearing Adjusters assure a precision fit, save time and eliminate a major cause of comebacks! Perfect Circle Corporation, Hagerstown, Indiana. The Perfect Circle Co., Ltd., Toronto, Ontario.

# Perfect Circle

The standard of comparison

## Economy Run . . . . . Continued from Page 54

Los Angeles to Sun Valley, Idaho. It was the toughest yet mapped for the annual event, not considering the additional traffic and adverse weather that was encountered by the twenty cars picked at random by the American Automobile Association officials. But in spite of this, the best fuel consumption record for a sweepstakes

winner in the history of the annual event was turned in.

The winner, which had standard transmission and overdrive, took this coveted trophy by turning in a mark of 60.8 ton miles-per-gallon and 28.1 actual miles-per-gallon. (Ton miles-per-gallon equals the gross weight of the car, multiplied by the miles given, and divided by

number of gallons.) The sweepstakes winner of the Economy Run goes to the car, regardless of classification, that attains the highest ton miles-per-gallon figure.

The car that came in second in the sweepstakes was a serious contender all the way. Equipped with standard transmission and overdrive, its final marks were 58.04 ton miles-per-gallon and 25.39 actual miles-per-gallon. The leaders in all classes are listed in the table along with their individual records.

An interesting sidelight, created by the bad weather in the mountains, was the comparison of chain installation and removal times. The fastest time taken to install chains on a car was two minutes and two seconds (accomplished by the sweepstakes winner); the slowest was eighteen minutes and ten seconds. The fastest removal of chains was forty seconds, while the slowest was six minutes.

The cars equipped with standard transmission and overdrive brought in a much better mileage record than their counterparts in the 1953 Run; whereas those cars with automatic transmissions showed no losses over last year's results. The overall results of the Run were surprising in view of the fact that, first, the Run was made through heavier traffic and poorer weather conditions than last year; and second, it was thought the limit had been reached in economy driving in 1953. Considering that the only changes were those that the manufacturer incorporated in the 1954 models, these facts indicate that the economy of the gasoline, automobile and motor oil have been improved. It also seems to prove the theory that a motorist will get more miles per dollar through the use of improved motor fuels.

The Economy Run, which originated in 1936, and the Indianapolis Speedway Race are credited by officials of the American Automobile Association as the two best testing grounds for improvement in automotive equipment and fuels. A more immediate result of the Economy Run, however, is that its records can become a goal for the average motorist.

# Kent-Moore ~~RATE-MAKER~~ Service Tools now available through selected Automotive Jobbers!



"Wait'll Chadwick finds out he misspelled..."

"Not me, Mac! I'm gonna get ahold of our jobber and order those special Rate-Maker tools we need right now!"



**KENT-MOORE**  
ORGANIZATION, INC.

5-105 G.M. BUILDING • DETROIT 2, MICH.







**For replacement bearings...**

**MAKE  
THE  
ONE  
SURE  
CHOICE!**

*Insist on genuine Hyatts! When you buy the bearings in the yellow and blue Hyatt packages, you're getting exact duplicates of original, specified bearings. Hyatt Hy-Loads, preferred for the vital load-carrying positions, are factory-installed in thousands of vehicles every day. And the new self-aligning, dual-purpose, Barrel Bearings—built only by Hyatt—are now widely used in passenger cars, trucks and farm machinery. Take a tip from the factory specialists —always replace a Hyatt with a Hyatt!*

# HYATT

A GENERAL MOTORS PRODUCT



A UNITED MOTORS LINE



DISTRIBUTED BY DEALERS EVERYWHERE

**ROLLER BEARINGS**

STRAIGHT ☐ BARREL ☐ TAPER ☐

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, N. J.

Chilton's MOTOR AGE, JUNE, 1954



**YOU JUST CAN'T DO BETTER...**





NO, YOU JUST CAN'T DO BETTER!

This set will out perform any other piston ring set in the  
"hard to hold" jobs regardless of kind, design or price

**CHROME CONTROL LEAK-PROOF**

REG. U.S. PAT. OFF.

**PISTON RINGS**



**McQUAY-NORRIS MANUFACTURING CO., ST. LOUIS 10, MO.**



## Vuky Wins Again . . . Continued from Page 108

Len Duncan did an outstanding qualifying job in Ray Brady's car. This car was built in 1950, but nobody could get enough speed out of it to get in the race. This time Duncan got in with a nice 139-plus miles per hour.

The Novi failed to get in the race due to its low qualifying speed. Duke missed the signal to come in.

Practically all cars used Offenhauser engines, fuel injection, metholene fuel, and spot brakes. Fuel tank capacities averaged about 50 to 55 gallons. All cars weighed from 1650 lbs to 1800 lbs.

This year's biggest blunder was on Bob Scott. He took Brady's car #18 out at the last minute to qualify and ran two laps at 139-plus and one lap at 136-plus. He

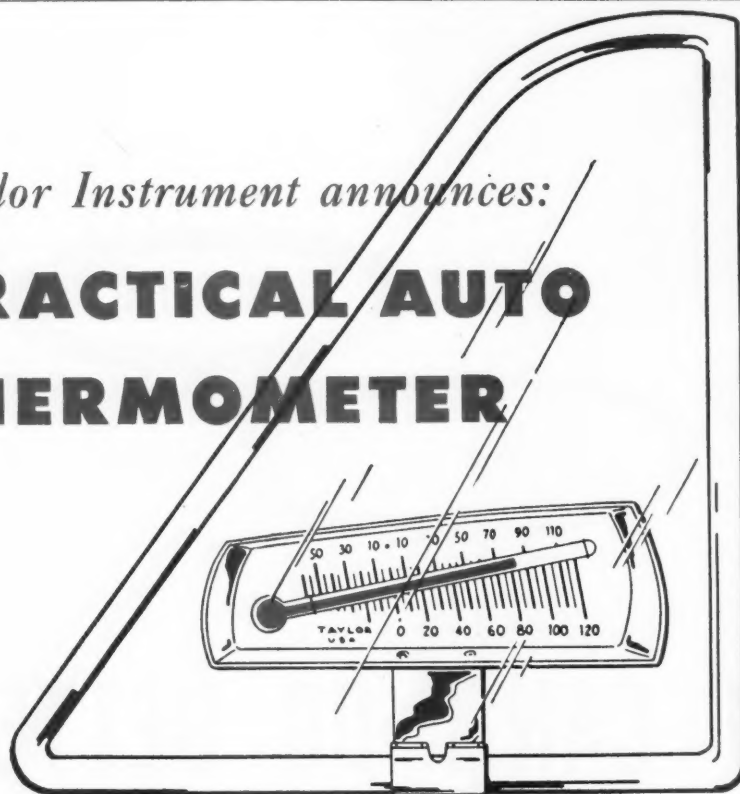
thought he received the checkered flag and came in to find out he had one more lap to go. It was too late to try again, so that put him and the car out of the race.

The Ferrari entry failed to make a qualifying attempt, but it did run a few laps at better than 133 miles per hour.

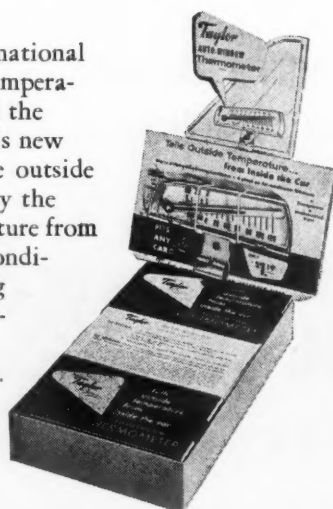
A few of the cars used a new, lighter cast-magnesium wheel. The new wheel weighs 18 lbs, 3½ lbs lighter than the previous models. They also have ventilating holes to improve brake cooling.

In this year's race 14 drivers out of the 33 were members of the famed Champion 100 Mile an Hour Club. This was established 20 years ago by Champion Spark Plug Co. for drivers who completed the 500 miles at a speed of 100 miles per hour or over. Club members of this year's race were Bryan, McGrath, Daywalt, Vukovich, McCoy, Reece, Duane Carter, Hanks, Ruttman, Nazaruk, Parsons, Linden, Russo, Cross and Rathman. Three famous drivers announced their retirement from racing this year. They are Henry Banks, George Connor and Lee Wallard.

### Taylor Instrument announces: **PRACTICAL AUTO THERMOMETER**



**T**HE Taylor Instrument Companies, international leader in the manufacture of precision temperature and weather instruments, has developed the first *practical* auto window thermometer. This new auto thermometer (5" x 1¾") locks on the outside right front vent-window for easier reading by the driver and passengers. It tells *outside* temperature from *inside* the car. Warns of hazardous driving conditions. Provides a check on air-conditioning efficiency. Popularly priced at \$1.19, the thermometer is merchandised in a self-service promotion display package of six. (\$7.20 list). Place your order NOW for August 1st delivery. Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.



### "500" Results

Winners	Speeds
Bill Vukovich	130.840
Jimmy Bryan	130.178
Jack McGrath	130.086
Troy Ruttman	
and Duane Carter	129.218
Mike Nazaruk	128.893
Fred Agabashian	128.711
Don Freeland	128.474
Paul Russo	
and Jerry Hoyt	128.037
Larry Crockett	126.899
Cal Niday	126.895



**A THREE WHEELER**, this one cylinder vehicle was built by the "Isi" Works of Milan, Italy. The two passenger car can reach 50 mph and will carry up to 200 pounds plus the driver.

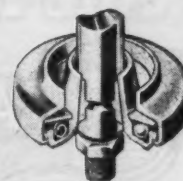
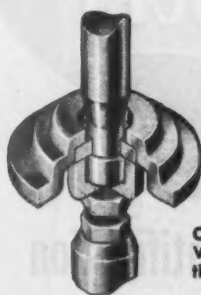
*Taylor Instruments* **MEAN ACCURACY FIRST**



"Now *THERE'S* a message that makes sense!"



The Thompson ROTO-CAP is the only positive valve rotator on the market.



Cut-away views of the Thompson release-type ROTO-VALVE (left) introduced in 1938, and Thompson's positive-type ROTOCAP (right) introduced in 1946.

## MAKE YOUR TP JOBBER YOUR "VALVE ROTATION HEADQUARTERS"

**T**O make valves last 2 to 5 times longer, more than fifty manufacturers have adopted "valve rotation", pioneered by Thompson Products and called "the hottest development in the original equipment field".

Today the Thompson release-type ROTO-VALVE is enjoying a popularity exceeded only by the ROTOCAP . . . the only valve rotator with a *positive* turning action (approximately 6 degrees every time the valve opens and closes) which distributes heat *evenly* on the valve face and wipes the valve face and seat clean, giving longer valve life.

You can get BOTH types of valve rotators from your Thompson Jobber for moderniz-

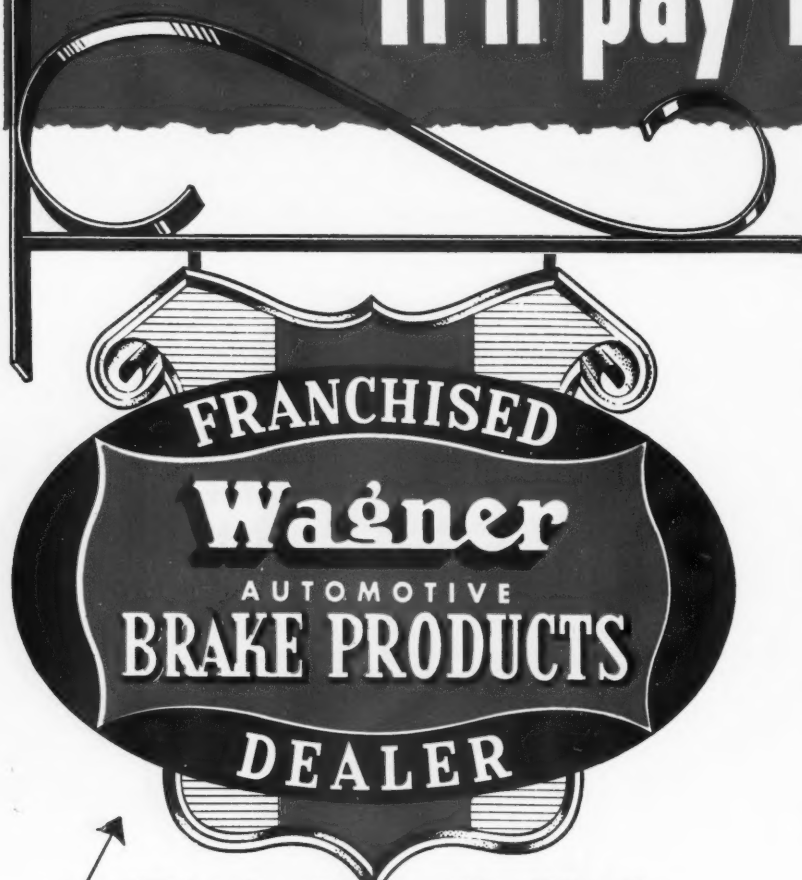
ing the valve trains of cars, trucks, tractors and buses. You can always count on him for the automotive parts that build better business and pile up more profits for the Repairman who handles only the best.



See your  
**Thompson  
Products Jobber**

DOMESTIC SERVICE SALES  
2209 Ashland Road • Cleveland 3, Ohio

# It'll pay You to be a



This sign is your identification

## Here's why:

- 1 Increase your business—Motorists will readily take their cars to the Wagner Franchised Dealer shop for brake repairs. They recognize the importance of having their work done by a qualified shop.
- 2 Wagner Brake Products are used as original equipment by vehicle manufacturers. Turn out better brake jobs—High quality and exact fit help you turn out good work.
- 3 Cash in on extra profit on brake work—you enjoy greater profits through special buying arrangements when you qualify as a Franchised Dealer.
- 4 Reduce your stocking problems—you always have what you want when you need it. Your jobber keeps your stock up to the minute.
- 5 Maintain better coverage—your stock is balanced for your volume of business and for the demand in your neighborhood.

*You have everything to gain...  
you make greater profit... you have  
no dead inventory... selling*

- ★ WAGNER LOCKHEED BRAKE FLUID
- ★ WAGNER LOCKHEED BRAKE PARTS
- ★ WAGNER CoMaX BRAKE LINING

...and all from one source... your **WAGNER** jobber



Est.  
1891

# Wagner

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID ... CoMaX BRAKE LINING ... BRAKE SHOES ... TACHOMETERS ... ELECTRIC MOTORS

*...the best known  
name in brake service*



# Wagner Franchised Dealer

## WAGNER

half-page ads in  
**POST and COLLIER'S**  
help develop business  
for you

Hard-hitting ads like this are regularly directed to the more than 7 million readers of POST and COLLIER'S. They forcefully stress the need for safe brakes ... encourage frequent inspection and maintenance ... and direct the reader to shops displaying the Wagner sign. Cash in on the full impact of this powerful advertising by becoming a Wagner Franchised Dealer. It means *more business* for you! ... better brakes for your customers!

**DON'T DELAY...**  
**ACT TODAY!**

Have YOU had your automobile brake system checked lately?



**SAFE BRAKES**  
... save lives!

For safety's sake, be sure your brake system is always filled with genuine

### WAGNER LOCKHEED BRAKE FLUID

... there's none better ... none safer!

Faster driving speeds and heavier vehicle traffic are causing the shameful toll of traffic accidents to mount to staggering heights—1,368,000 per year at latest estimate by the National Safety Council. What are you doing about it?

You can help most by having your brake system inspected at least every six months. Inspection may disclose that all that is required is the addition of a few ounces of brake fluid. If so, specify genuine WAGNER LOCKHEED BRAKE FLUID. It is properly balanced chemically for maximum performance in all seasons and under all driving conditions. It surpasses S.A.E. (Society of Automotive Engineers) specifications.

Should inspection disclose that parts of the brake system are worn—BRAKE PARTS. And, if new lining is required—have the brakes relined with WAGNER CoMaX BRAKE LINING. You can depend upon WAGNER QUALITY because Wagner Products are used as original equipment by car, bus, truck, and trailer manufacturers.

**LOOK FOR THE WAGNER SIGN.** It identifies the shops who use Wagner Brake Products. You can get brake service where Wagner Products are used in your neighborhood. If you don't know where, write us. Wagner Electric Corporation, 6400 Plymouth Ave., St. Louis 14, Mo., U. S. A. (In Canada: Wagner Brake Company Ltd., Toronto.)





EXHAUSTED HYDRAULIC BRAKE PARTS AND FLUID ... PUMPS ... DOUBLE BRAKE LINES ... INDICATORS ... AIR BRAKES ... THERMOSTATS ... ELECTRIC BRAKES

### Wagner Electric Corporation

6498 PLYMOUTH AVE., ST. LOUIS 14, MO.  
(Branches in principal cities in U. S. A. and in Canada)

Ask your jobber about the Wagner Franchised Dealer Program or write us for a copy of AU-607. It gives all the details.

Name \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

City \_\_\_\_\_



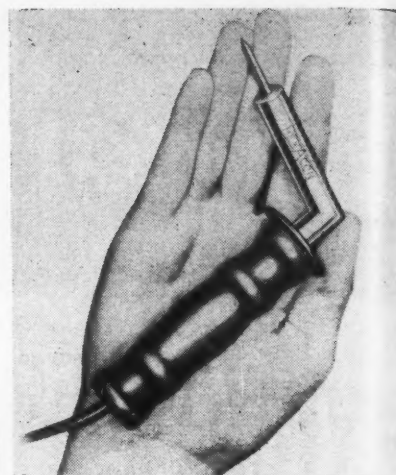
H54-13

**313. Spring Leaf Pads**

Champ-Items, Inc.: Silencing pads for Ford, Mercury and other cars are now being marketed. Made of solid woven webbing (wax impregnated), they are said to stop squeaks and provide easier riding. The position locating and retaining discs provide easy installation.

**314. Soldering Iron**

Hexacon Electric Co.: A new, very small hatchet soldering iron weighing but 3 ounces has been announced. "Perfect balance due to the hatchet design makes the iron effortless to hold and thus gives more accurate control of soldering." Because of the iron's design, the company claims it is



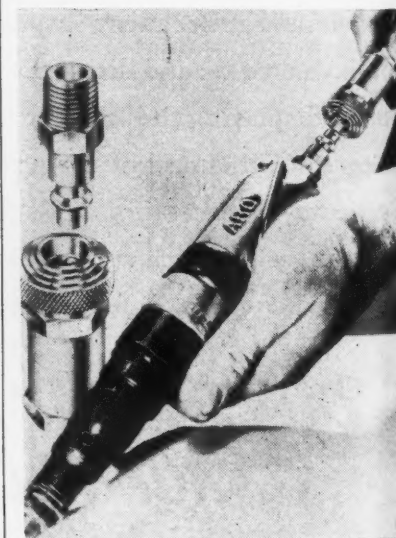
more powerful than the wattage rating indicates. It is available in 110 and 220 volts.

**315. Spray Colors**

Krylon, Inc.: Six new colors have been added to this company's line of protective coatings. Cherry red, regal blue, machine grey, chrome yellow, light grey and hunter green are packaged in the familiar 12-ounce aerosol spratainers.

**316. Coupling**

Roylyn Incorp.: A new coupling series has been marketed by this company. "The unit quick-lock principle (a twist of the wrist,



one-quarter turn) which makes possible split second interchange of tools, and its positive lock, prevent accidental uncoupling." This coupling is interchangeable with connectors for most leading manufacturers.

(Continued on page 120)

# ECHLIN EXTRAS

## IN Molded PARTS

# ECHLIN

## Ignition

CONTACTS  
COILS - CONDENSERS  
& OTHER AUTOMOTIVE  
ELECTRICAL PARTS

On every tune-up and engine repair job, look for cracked or burned molded parts. Always replace with precision molded ECHLIN Parts to insure top performance. ECHLIN Extras in Plastic molding give you Extra Quality at no extra cost.


**ECHLIN MANUFACTURING COMPANY • DEPT. MA, 220 EAST ST. • NEW HAVEN 5, CONN.**

# ONLY LIQUI-MOLY® HAS PROOF!

NO OTHER MOTOR OIL SUPPLEMENT HAS  
BEEN GRANTED THE CERTIFIED TEST AWARD  
BY MOTOR VEHICLE RESEARCH, INC.



## HERE'S WHY LIQUI-MOLY IS DIFFERENT!

	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> reduced oil consumption 56%.
	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> reduced gas consumption 17%.
	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> actually plates internal engine parts with a tenacious protective coating.
	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> drastically reduces engine friction... cuts engine wear and overheating.
	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> assures prolonged protection against engine seizures even if oil is lost.
	<b>TESTS PROVED</b>	<b>LIQUI-MOLY</b> lubricates before oil starts flowing... prevents dry starts.



- LIQUI-MOLY contains no kerosene, graphite, or harmful ingredients that break down under engine heat into acid forming or corrosive residues.
- LIQUI-MOLY is not affected by engine heat, pressures or acids.
- LIQUI-MOLY is the only product made by the original, exclusive A. J. Lockrey process by which Molybdenum Disulfide particles are submicronized to less than one micron and held in continuous suspension. There is no need to ever remove oil filter.

**Consistent Advertising—builds consumer demand—steady repeat profits for you!**

Every other week in  
The Saturday Evening  
**POST**

Every month in  
**POPULAR MECHANICS**

Every month in  
**POPULAR SCIENCE**

Every week in  
**LOCAL NEWSPAPERS**

For quick turnover...  
to help your customers  
and yourself

SIMPLY ADD ONE CAN to crankcase oil. LIQUI-MOLY then coats all engine friction surfaces with a protective anti-friction metal plating of slippery Molybdenum Disulfide. Engines gain new smooth gliding power—not possible with oil alone.

For extra profits from every grease job...  
**LIQUI-MOLY GEARLUBE BOOSTER**  
for quieter gear-driven transmissions and differentials. 2 oz. tube, \$1.25

**PROVE LIQUI-MOLY FOR YOURSELF... AT OUR EXPENSE!**

Just fill in the coupon and attach it with \$1.00 to your letterhead. We'll send you **TWO \$1.50 cans of LIQUI-MOLY**. Try one in your car. If LIQUI-MOLY is not everything we claim, send back the unused can and we'll return your dollar.

THESE ARE CERTIFIED FACTS  
FROM MOTOR VEHICLE RESEARCH, INC.  
(Complete technical report available on request)

PROTECT YOUR CUSTOMERS' ENGINES  
WITH COMPLETE LUBRICATION...

**ADD AUTOMOTIVE LIQUI-MOLY®**  
**ANTI-FRICTION ENGINE PLATING**

Money back guarantee covers every LIQUI-MOLY treatment. Over 2,500,000 cans sold to date for cars, trucks, buses and tractors.

**FREE**  
• Display rack • window streamers • counter cards • decals • slickers • posters, etc.  
Ask your jobber TODAY.

MOLY MOTOR PRODUCTS CORP.  
1155 Broadway, New York 1, N. Y.

X-1

Let me have the facts on how I can increase my profits and better serve my customers by selling Automotive LIQUI-MOLY Products.  
☐ Here's my dollar for the special offer. (\$3.00 value)

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



## 317. Cutting Pliers

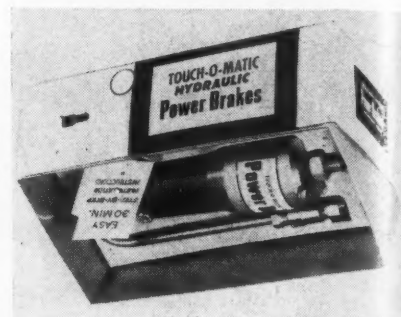
**Utica Drop Forge & Tool Corp.:** This company announces a new 5½-inch compound leverage action, diagonal cutting pliers. These cutters have hardened forged jaws and hand honed cutting edges. Handles are steel stampings and are fitted with a spring which opens the jaws automatically. The

company says the cutters are specially adapted to repetitive operations.

## 318. Power Brakes Kit

**Continental Mfg. Products, Inc.:** A low-cost power brake kit has been marketed by this company. The unit operates on a double piston principle and is said to bring

a vehicle to a stop 40% faster, with half the usual effort. The



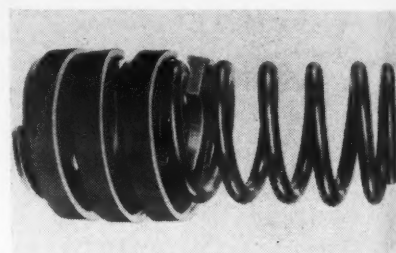
Touch-O-Matic kit is complete and available with fittings for all vehicles in each weight class.

## 319. Socket Wrenches

**Bonney Forge & Tool Works:** This company announces a new set of Whitworth sockets and wrenches to service the new English made Nash Metropolitan, as well as other foreign make cars. It includes seven ⅜-inch square sockets with openings ranging in size from ⅛ inch to ½ inch; three attachments and seven combination wrenches with the same size openings at each end. These are ⅛ inch to ½ inch.

## 320. Spring Protector

**Haynes Sales Corp.:** Available for all types of cars, Spring Savers



are a set of cushion discs which thread between the three lower coils of the front springs and "can be installed in ten minutes with no tools except a bumper jack." The device "eliminates front end sag, nose diving and allows quicker stops when braking."

## 321. Tapered Muffler

**Automotive Engineering Inc.:** This company has introduced a new tapered muffler called Taper-Tone Red Top Muffler. The manu-  
(Continued on page 122)

**A Perfect Pair**

- BALANCED
- MATCHED
- TESTED
- MATED
- SEALED

**THE ACCURATE CLUTCH SET**

Accurate clutch sets are made to be a perfect pair . . . to assure finest performance five ways. First, the pressure assembly is checked on a floating table for perfect *balance*. Next, it is *matched*, *tested* and *mated* with a new Powerflex® Clutch Plate for smooth, full release. Only then are these units protectively packaged as complete Accurate Clutch Sets. And, they're ready to install—including bushings, gaskets, bearings, whatever parts are needed to do the job *right*. Accurate Clutch Sets are complete . . . and Accurate has the most complete clutch line. Ask your Accurate Jobber.

**Accurate Powerflex® Clutch Plate**—with patented flat-top cushions and spring supports for longer plate life, and exclusive self-aligning hub splines for ease of installation.



**Accurate CLUTCHES**

ACCURATE PARTS MANUFACTURING CO.  
1600 S. Ashland Ave., Chicago 8, Illinois

CLUTCH SERVICE  
A UNIT OF  
MAREMONT  
SINCE 1877



Announcing  
**NEW**

# Du Pont Brake Fluids to meet every service need **SAFELY!**



THEY MEET...OR EXCEED  
RIGID S.A.E. SPECIFICATIONS

You can be sure of giving your customers full protection with Du Pont No. 7 Brake Fluids. They meet or exceed S.A.E. Brake Fluid Specifications 70R1 and 70R2.

And they give you maximum economy consistent with safety, because they're engineered for the job—one for MODERATE DUTY, one for HEAVY DUTY.

With Du Pont Brake Fluids in these two performance ranges, you can service every kind of vehicle—from light passenger cars to heavy trucks and buses.

It's a good way to safeguard your customers . . . and your own good name. Re-

member to specify genuine Du Pont Brake Fluids next time you order!

- Du Pont Brake Fluids do not boil off when heat is generated in high-speed stops.
- Do not form a vapor lock when heat from drum is carried to wheel cylinder.
- Will not solidify at temperatures far below zero.
- Will not swell rubber cups and hose, nor corrode metals in brake system.
- Will not lose efficiency after several months' storage.
- Will mix with all approved fluids used in new car production.
- Available in the following sizes: 12 Oz., 1 Qt., 1 Gal., 5 Gal., 30 Gal., and 54 Gal.



BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY.

## DU PONT NO. 7 PRODUCTS

From Chemical Research . . . For Better Car Care

## New Products . . . . . Continued from Page 120

facturer states that the tapered design combined with a thick layer of fiberglass and a patented tone control reduces noise and produces a pleasing tone. The new muffler has straight-through construction, "increasing horsepower and gas mileage, by reducing back pressure." The core of the muffler has louvered openings which pass

the exhaust gases into the fiberglass chamber.

### 322. Adjustable Shock

Gabriel Co.: A new adjustable shock absorber has been marketed by this company. The Adjustomatic bears the words "Soft-Normal-Firm" near the lower end of the

dust tube, and an arrow on the outside of the cylinder wall, pointing upward to these settings. By twisting the unit so any one of these words appears above the arrow, the Adjustomatic clicks and thus is set to provide the type of ride indicated.

### 323. Auto Crib

Stacy Mfg. Co.: A new four-way auto crib thickly padded for riding comfort has been introduced. The



**Every Autostat sale—a profit for you!**

Sooner or later every car is a prospect for Autostat. Thermostats need replacement eventually—they don't last forever. That means millions of cars are good, solid prospects for a replacement Autostat right now.

**Autostat—for any type cooling system, sealed or open**

Here's why Autostat can increase your sales:

Autostat meets the thermostat requirements of any type cooling system.

It satisfies any car manufacturer's preference.

It duplicates any original equipment thermostat.

Autostat is quality-made...dependable...easily installed. Liberal profit margin. Handy "Merchandise" assortment takes care of 90% of car models on the road.

**Order Now.** See your jobber, or write us for information and prices. Robertshaw-Fulton Controls Co., Fulton Sylphon Division, Dept. LMA, Knoxville 1, Tennessee.

**AUTOSTAT\***

\*Trade Mark Reg. U. S. Pat. Off.

**MOTOR THERMOSTATS BY FULTON SYLPHON**



Baby-Pullman is portable and it expands as needed. For use as a safe auto crib, the panels are raised. A plastic screen cover-all snaps on for home or outdoors.

### 324. Glaze Breaker

Lisle Corporation: A new stone-type glaze breaker with a range of from two to seven inches has been announced by this concern. The new glaze breaker, Model GBX, features controlled pressure in all sizes of cylinders. The operator simply turns a knurled expansion nut to increase or decrease pressure. The GBX operates with a 1/4 inch drill; it is designed so that it can easily be inserted in a cylinder, and can be removed without scratching cylinder walls. Stones are easily compressed by hand and it is not necessary to remove from the electric drill when changing from one cylinder to another. An adjustable stop-collar permits quick selection of two range settings: from two inches to four inches, and from four inches to seven inches.

(Continued on page 133)





SINCE **1906**

*Perhaps 2,000 makes of cars and trucks  
have come and gone... But there are still*

## **FITZGERALD GASKETS**

*for every engine, gasoline or diesel*

*Also...*

GREASE RETAINERS, CORK GASKETS,

FITZ-RITE TREATED FIBER GASKETS

FOR OIL, GASOLINE

AND WATER CONNECTIONS.

COMPLETE SETS FOR MOTOR REBUILDERS



In 1906 there were more than 75 makes of American cars; today about 20 . . . only 7 of which were being made when the first Fitzgerald Gasket was produced. Perhaps as many as 2,000 makes have come and gone in the intervening years . . . while Fitzgerald Gaskets have steadily kept pace with automotive progress . . . recognized throughout the world for their rugged dependability in today's high compression engines. Since 1935, we're proud to say, our gaskets have been sold abroad exclusively by the world's largest manufacturer of automobiles.

### **THE FITZGERALD MANUFACTURING CO.**

TORRINGTON, CONNECTICUT

BRANCHES AND WAREHOUSES

LOS ANGELES, CALIF.; CHICAGO, ILL.

CANADIAN FITZGERALD LTD., TORONTO, CANADA

How many motor oil grades  
are really needed?

## QUAKER STATE ANSWERS— “LIGHT, MEDIUM AND HEAVY”

**N**OW, Quaker State takes the lead in bringing common sense and simplicity back to motor oil marketing!

With the new Quaker State streamlined grading system, you can service every make and model of car with 3 basic grades of oil. They are—a light oil, for cold weather driving, a medium oil, for warm weather driving and a heavy oil, for use where SAE 40 or 50 grades are recommended. Each of these 3 grades is offered in the time-tested Quaker State Stabilized Motor Oil and the famous Quaker State HD Oil.

In addition, Quaker State offers a fine quality Multiple Viscosity HD Oil SAE 5W-20 for the more sensitive designs of modern high compression engines. It is available for use where an oil of this type is recommended by the car manufacturer, and especially for use under cold weather driving conditions.

Quaker State believes you will welcome this new “common-sense” grading system. It means faster moving inventories and easier ordering. Customer satisfaction is assured because it is a simple matter for any serviceman to use the right oil for every engine need!

Always recommend—

# Quaker State

QUAKER STATE OIL REFINING CORPORATION, OIL CITY, PA.

### NEW QUAKER STATE MOTOR OIL CLASSIFICATION

**NOW**—you need only 3 grades of Quaker State Stabilized Motor Oil—for service ML and MM.



**1. LIGHT**—SAE 10W, 20W and 20. A light grade made especially for cold weather service.



**2. MEDIUM**—SAE 20W-30. A medium grade made especially for warm weather service.



**3. HEAVY**—For use where SAE 40 or 50 grades are recommended.

**NOW**—you need only 3 grades of Quaker State HD Oil for service MM, MS and DG.



**1. LIGHT**—SAE 10W, 20W and 20. A light grade made especially for cold weather service.



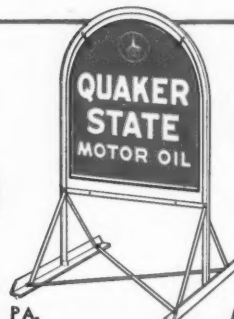
**2. MEDIUM**—SAE 20W-30. A medium grade made especially for warm weather service.



**3. HEAVY**—For use where SAE 40 or 50 grades are recommended.



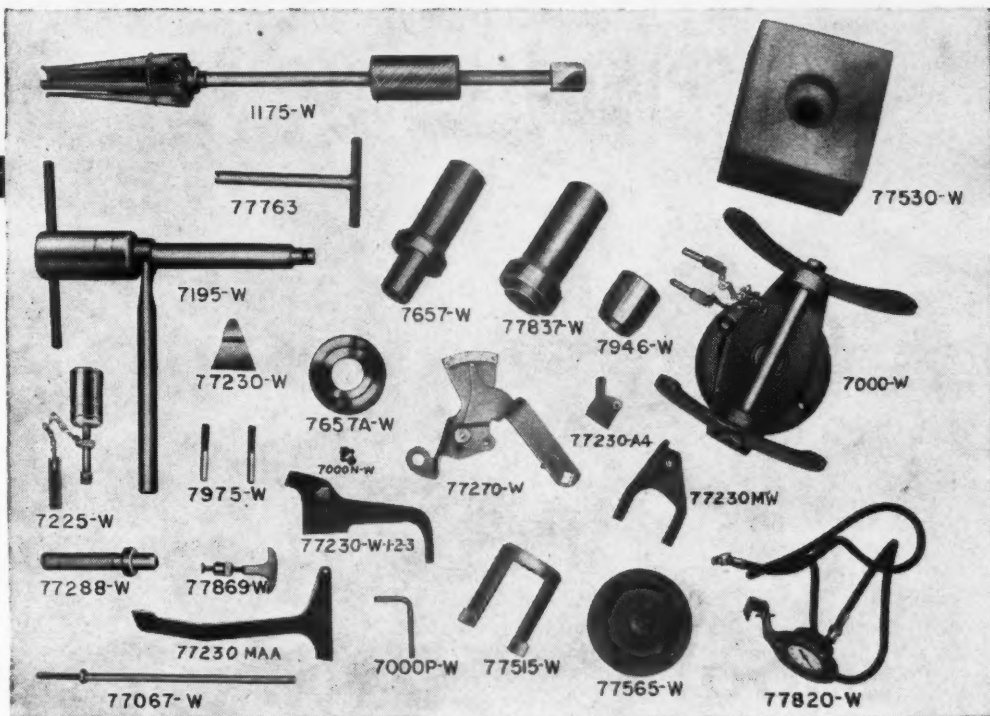
**MULTIPLE VISCOSITY HD Oil SAE 5W-20**—Made especially for more sensitive types of modern, high compression engines...and for use in extreme winter climates...For service MM, MS and DG.



the high quality,  
long-lasting, free-flowing,  
100% pure  
Pennsylvania Motor Oil

Member Pennsylvania Grade Crude Oil Association

# **\$169<sup>99</sup> buys these OFFICIAL TOOLS for FORD-O-MATIC REPAIR WORK!**



Now for the first time, K. R. Wilson is making available to independent garages, the official, factory-approved service tools for Ford-o-matic and Merc-o-matic transmissions. These are the identical tools furnished by us to Ford and Mercury dealers throughout America. Now you can buy them *at a greatly reduced price* and get your share of a lucrative, growing market. As the first Ford-o-matic and Merc-o-matic transmissions grow older, the number of repair jobs will increase. So be prepared to get your share. Order your tools today!

## **FREE!**



With each complete set of these Ford-o-matic and Merc-o-matic tools we will send free of extra charge this authentic 88 page book of factory prescribed methods for servicing Ford-o-matic and Merc-o-matic transmissions. Complete with photographs showing these KRW tools in use. Retail value \$5.00. You may also buy these tools individually. Write for prices.

*Hurry! Free book offer is for limited time only.*

1175W KRW Seal Remover—Front Pump and Rear Extension with Slide Hammer Attachment.  
7000NW KRW Air Nozzle Tip.  
7000PW KRW Throttle Linkage Adjusting Pin.  
7000W KRW Transmission—Bench Stand Assembly.  
7195W KRW Rear Band Adjusting Tool.  
7225W KRW Front Band Adjusting Tool.  
7657W KRW Extension Housing Seal Replacer and Pilot.  
7657AW KRW Adaptor—Trans. Exten. Oil Seal Dirt Shield.  
7946W KRW Tool to install OWC Inner Race.  
7975W KRW Guide Pins for installing Trans. to Converter Housing (2 req'd.).  
77067W KRW Dial Indicator Support Fixture.  
77230W KRW Ford Linkage Adjusting Tool for 1950.  
77230W-123 KRW Ford Linkage Adjusting Tool for 1951, '52 and '53.

77230-A4 KRW Ford Linkage Adjusting Tool for 1954.  
77230-MW KRW Mercury Linkage Adjusting Tool for 1950-51.  
77230-MAA KRW Mercury Linkage Adjusting Tool for 1952, '53 and '54.  
77270W KRW Assy. Throttle Protractor.  
77288W KRW Control Shaft Tool.  
77515W KRW Rear Clutch Spring Compressor.  
77530W KRW Clutch Assy. Fixture Seal Replacer.  
77565W KRW Front Clutch Spring Compressor.  
77763W KRW Throttle Valve Stop Bending Tool.  
77820W KRW Pressure Gauge & Hose.  
77837W KRW Front Pump Seal Replacer.  
77869W KRW Rear Pump Discharge Tube Remover and Installer.  
77230-MB KRW gauge pin throttle bushing for 1954 Mercury.

## **ATTENTION JOBBER!**

Interested in adding these official KRW Ford-o-matic tools to your line? Your inquiries are invited.

# **K·R·WILSON**

**211 Mill Street, Arcade, N. Y.**

World's Oldest Manufacturer of Garage Tools and Equipment

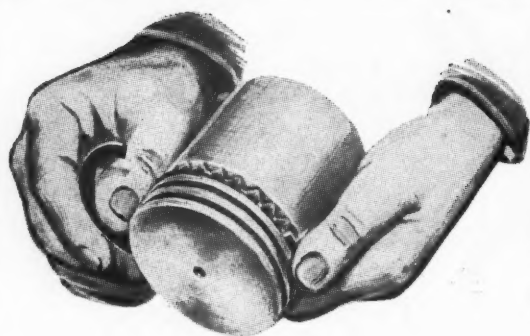


# *Pedrick*

## **FORMFLEX CHROME PISTON RING SETS**

*for*

**EASY  
INSTALLATION**



**SMOOTH  
OPERATION**



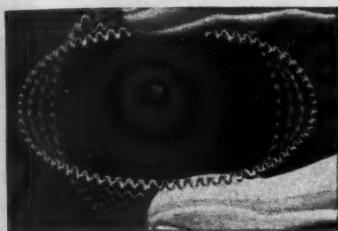
**CUSTOMER  
APPRECIATION**



# 5 BIG PEDRICK ADVANTAGES

## FOR

### BEST PERFORMANCE • LONGEST LIFE

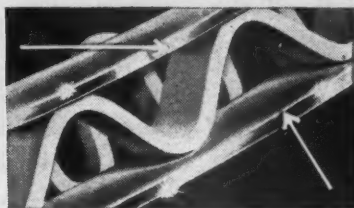


**AMAZINGLY CONFORMABLE**—Made possible by revolutionary type expander... the Pedrick "Equalizer."

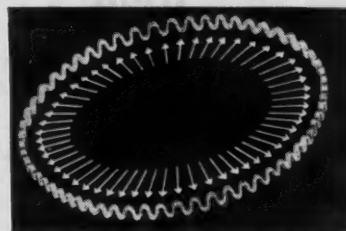


**ALMOST TRIPLE OIL DRAINAGE**— $2\frac{1}{2}$  times more open area provided by "Equalizer" and Spacer eliminate plugging.

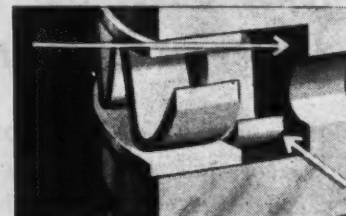
#### PEDRICK *FORMFLEX* CHROME OIL RING



**CHROME FOR LONG LIFE**—Both rails are faced with solid chrome to last far longer in spite of heat, friction, abrasion or corrosion.



**UNIFORM PRESSURE DISTRIBUTION**—"Equalizer" gives equal outward pressure—more perfect seal—better oil control—longer life.



**INDEPENDENT OF GROOVE DEPTH**—"Equalizer" does not rely on contact with bottom of groove for pressure or tension.

#### ... AND FOR HEAVY DUTY ENGINES

*Pedrick*

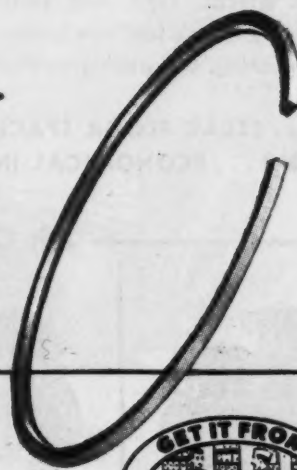
#### CHROME TOP RING ...

**TWO TO FOUR TIMES LONGER LIFE.** The solid hard chrome face lasts up to 4 times longer and also reduces wear on cylinder wall and on all the other rings.

**ELIMINATES BREAK-AGE.** A special alloy, centrifugally cast and heat-treated, is exceptionally tough and stands up without breakage even under the heaviest loads.

**HEAT-SHAPED.** Process developed and used exclusively by Pedrick to insure correct and lasting tension, and to maintain uniform pressure around entire circumference of ring.

**POSITIVE 3-WAY SEAL.** Twist-Seal design gives point contacts at cylinder wall and upper and lower sides of ring groove—for quick and lasting seals at all three locations.



**WILKENING MANUFACTURING CO.**  
PHILADELPHIA 42, PA.

In Canada: Wilkening Manufacturing Co.  
(Canada) Ltd., Toronto





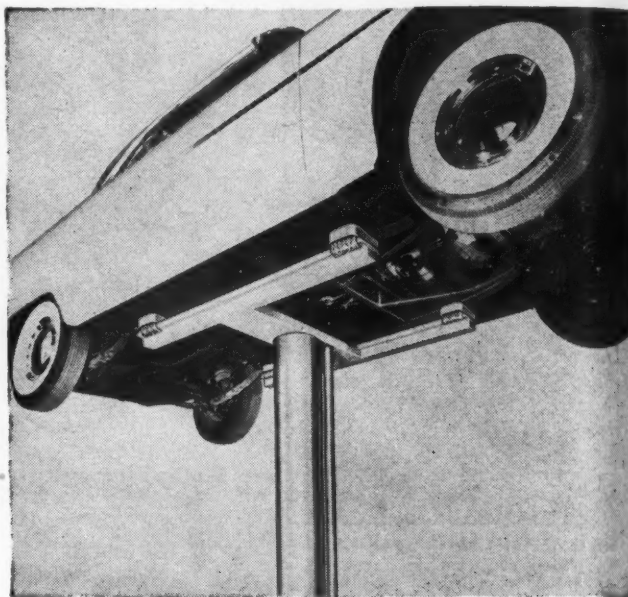
# NEW Curtis FRAME LIFT

*Makes Under-Car Work  
Faster and Easier...*

This new lift meets a wide range of needs in price and performance. It's ideally suited to all kinds of service station or repair shop use:

- **MAXIMUM ACCESSIBILITY** . . . reach all points easily for lubrication, inspection, adjustment and repairs. Fast, low-cost under car mechanical work.
- **IMPROVED LUBRICATION** . . . car springs are relaxed and bearings are free — permits full grease penetration at lower pressures.
- **QUICKER WHEEL, TIRE, AND BRAKE WORK** . . . free-hanging wheels facilitate brake work, tire rotation, wheel repacking, and putting on chains.

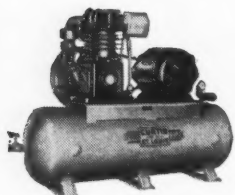
*plus* . . . **CLEAR FLOOR SPACE . . . EASY SPOTTING . . . ECONOMICAL INSTALLATION!**



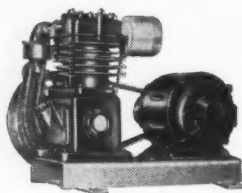
## OTHER TYPES OF **Curtis** LIFTS—

Two Post Shop Lift  
Single Post Roll-On Lift  
Single Post Free Wheel Lift  
Two Post Truck and Bus Lift

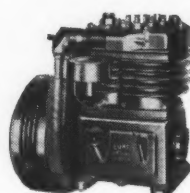
## Air Compressors



1/4 H.P. through 15 H.P.

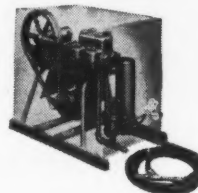


1/4 H.P. through 50 H.P.



1/4 H.P. through 50 H.P.

## High Pressure Car Washer



1 and 2 Gun Models—  
300 Lbs. Water Pressure

**CURTIS PNEUMATIC MACHINERY DIVISION** of Curtis Manufacturing Company

1946 Kienlen Avenue, St. Louis 20, Missouri



Your Chevrolet Dealer is  
ready, willing and able  
to serve you  
**better than ever!**  
See him today!

## Independent Servicemen:

*Here's 1  
of the  
4 Big  
Benefits  
you get*

when you deal with  
**YOUR CHEVROLET DEALER**  
... **YOUR PARTNER**  
**IN SERVICE**

### Increased Service Efficiency

You get the parts you want in a hurry. What's more, Genuine Chevrolet Parts fit right ... save you time on the job. Installation is quicker, simpler, easier.

*Here are the  
other 3 →*



By dealing with your Chevrolet dealer, you can take full advantage of the wide reputation for customer satisfaction that has been built by Genuine Chevrolet Parts in the industry's largest owner service market!



#### A complete line of Genuine Chevrolet Parts

One quick, convenient source supplies all the parts you need. And you get the right parts to do the job right—Genuine Chevrolet Parts.



#### Greater Customer Satisfaction

Your service work is bound to satisfy when your mechanics use Genuine Chevrolet Parts. They're made to function better, last longer.



#### Technical Helps in Solving Service Problems

Helps like the "Time Saver" shown here enable you to solve tough service problems quickly. You do jobs the *right* way — *right away!*

**YOUR CHEVROLET DEALER IS READY, WILLING AND ABLE TO SERVE YOU**

# HIGHEST SALES VOLUME PER DEALER

in the entire medium-price field!



*it pays to travel with* **MERCURY**

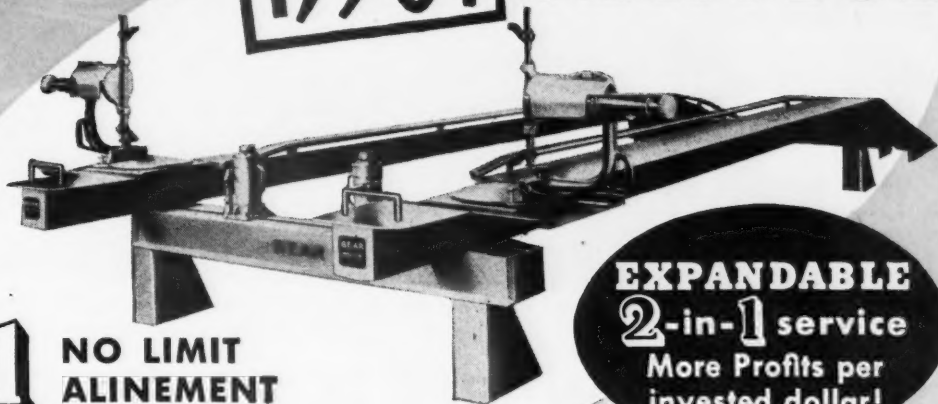
No Limits to What It Will Do...

No Limits on the Profits You Make!

You Do the Job Right in Less Time with the

**EXPANDABLE**

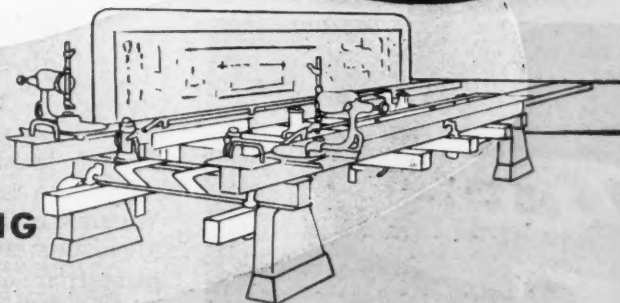
# "BEAR" 195-84 SERVICE



**1 NO LIMIT  
ALINEMENT  
SERVICE**

**EXPANDABLE  
2-in-1 service**  
More Profits per  
invested dollar!

**2 COMPLETE  
FRAME  
STRAIGHTENING  
SERVICE**



Easy to Buy  
On The  
"Pay-Out-of-Profit" Plans  
Offered By Your  
"Bear" Jobber



You're not limited to just a few simple wheel alignment service operations when you set up with the "Bear" 195-84! There is NOTHING IN ALINEMENT IT WON'T DO... that's why the sky's the limit for profits! And when you're ready for frame straightening... you can E-X-P-A-N-D your "Bear" by just adding a few tools and frame attachments and you're all set for big frame straightening profits, too! This EXPANDABLE feature is a "Bear" EXCLU-

SIVE that makes "Bear" the smart investment from the start! The BIG PROFIT POWER of nationally-advertised "BEAR" SIGNS... the extra stamina of "Bear" built-like-a-battleship construction... the extra speed... extra power... and extra tools you get with the "Bear" 195-84 make it the No. 1 choice of America's automotive repair men. For all the facts write for catalog data bulletin and Finance Plan. BEAR MFG. CO., DEPT. M 1, ROCK ISLAND, ILL.

## YOU GET ALL THIS!

- 1 Complete 5-point Alinement Checking and correction plus axle and rear housing straightening.
- 2 72,000 lbs. of hydraulic pressure for speed and ease in correcting.
- 3 Extra high so mechanic can work faster and easier. Available in flush or floor models!

- 4 EASILY ADJUSTABLE TRACKS FOR ALL TREAD WIDTHS!
- 5 Safety stops on each track.
- 6 Special precision gauges.
- 7 Handy accessory tools.

the **MORE "BEAR"** you have... the **MORE MONEY** you make

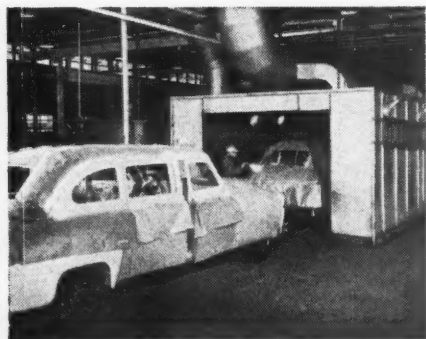
T-2192R





The speed and dependability of DeVilbiss equipment keeps Waters' assembly lines fed with sparkling spray-finished cabs.

## Here's where taxicabs are born



Double length "drive-thru" DeVilbiss spray booth arrangement speeds painting. Waters Mfg. Co. uses 16 DeVilbiss Spray Guns, three air compressors, separate booth to spray-paint parts.



"I've been spray painting for 25 years; I prefer DeVilbiss guns," says Fred Patterson, shown painting the interior window reveal of a future taxi at the Waters' plant.

### DeVilbiss spray equipment accounts for the gleaming finishes on taxicabs produced by the Waters Manufacturing Company

Several thousand taxicabs a year roll off the production line at the Waters Manufacturing Co., Detroit, Mich. Cars arrive at the Waters' plant from auto factories minus windows, seats, interior trim and upholstery. When they leave, their glistening finish will withstand years of wear.

Before cars can be outfitted, window reveals (area around windows, inside and out) must be painted to match the color scheme of the fleet being processed. Painting is done quickly and efficiently in a DeVilbiss Spray Booth. In the upholstery department, operators use DeVilbiss spray equipment to apply latex adhesive on door panels, "jump seat" backs and instrument-panel tops.

Says Harold Hansen, foreman of the paint and metal shop, "We've always used DeVilbiss equipment. We like the way DeVilbiss guns atomize paint—they lay on a nice

pattern." Jobs turned out by Waters Mfg. Co. show that Foreman Hansen insists upon *factory-quality finishes!*

If "factory quality" is your standard, too, insist on DeVilbiss equipment in *your* paint department — to speed output, and give you better finishes at a lower cost. Contact your local DeVilbiss jobber — right now! — for complete information.

### THE DEVILBISS COMPANY Toledo, Ohio

Santa Clara, Calif. • Barrie, Ontario  
London, England

FOR BETTER SERVICE, BUY

# DEVILBISS



BRANCH OFFICES AND DISTRIBUTORS IN PRINCIPAL CITIES THROUGHOUT THE UNITED STATES, CANADA AND THE WORLD

## 325. Hand Sprayer

**Kelite Products, Inc.:** A new sprayer has been introduced which has a chrome head and a translucent polyethylene container. The



sprayer comes equipped with two jets (spray and needle). The trigger actuates a metal piston which gives a strong mist spray comparable to air-pressure types. "The unit is light to handle, needs no gasket, is resistant to nearly all liquid sprays, and holds a full pint with visual indication of the contents."

## 326. Air Conditioner

**Kauffmann Air Conditioning Co.:** The car air conditioning unit being marketed by this company is easily transferred when the owner changes cars. "The cooling unit can be installed in the trunk or under the glove compartment. With seven amps at six volts, the three horsepower motor-driven fan can produce up to 450 cubic feet of air per minute." One control on the dash operates it.

## 327. Sun Visor Wallet

**Pam Sales Co.:** A new wallet that fits on a car's sun visor is being manufactured by this company.

The wallet has a large zipper

pocket for maps or papers; a snap fastener case for sun glasses and a notebook for names, addresses and mileage reports.

Visor-Wallet is made of U. S. Naugahyde Vinyl—in burnished red. According to the manufacturer the wallet is stitched—not heat sealed.

## 328. Car Lighter

**Rochester Products Division:** The heating element of this new car lighter is located at the bottom of a cup-like shield. The exterior of the Kool-Kup stays cool to handle and won't burn if dropped. An insulated air space around the element and an aluminum ring heat trap below it keep the exterior of the lighter cool.

## 329. Tool Tray

**McBride Patent Products:** This company is now merchandising a new tool tray designed to keep tools and parts together and within arms reach. The Moto Tote is easily lifted on and off any car and is fully adjustable, according to the company. The all steel unit is 16-inches by 22-inches and stands on rubber tipped steel legs.

## 330. Windshield Washer

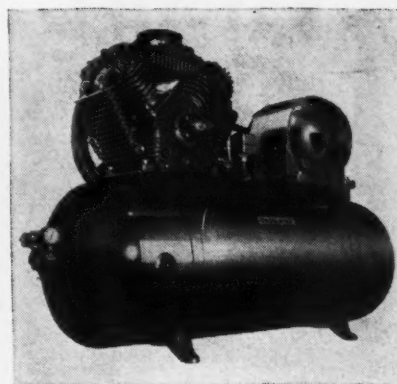
**Anderson Co.:** "Entirely self-contained and drawing no current from the car's battery or vacuum



system, the 'Big-Shot' washer features fast installation and trouble-

(Continued on page 134)

## Low cost air



# How much does your compressed air cost?

Probably more than you think. The biggest cost in compressed air isn't the price of the compressor; it's the operating cost: the power needed to produce each cubic foot of air, the amount of service and repairs needed. That's why it will pay you to replace your old or inefficient compressor with a DeVilbiss Air Compressor. You'll save on power, upkeep and depreciation. *DeVilbiss Air Compressors deliver more air for the money.*

For a complete analysis of your compressed air needs, contact your local DeVilbiss jobber.

DeVilbiss has an Air Compressor to fit your needs, from ½ to 15 hp., single or two stage, Upright or V Type.

**THE DEVILBISS COMPANY**  
Toledo, Ohio

Barrie, Ontario • London, England  
Santa Clara, Calif.

BRANCH OFFICES IN PRINCIPAL CITIES

FOR BETTER SERVICE, BUY

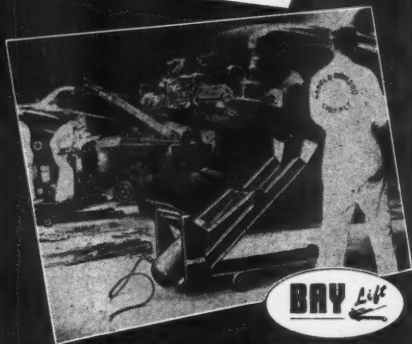
# DEVILBISS





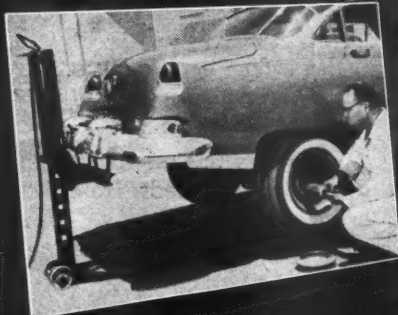
## BAY-LIFT

puts you in  
*proper position*  
for profits



**PORTABLE, PNEUMATIC** — Goes anywhere an air hose will reach! Raises either end 50" in 10 seconds. Holds at any position. Automatic safety lock. Two stage control valve. Rugged, dependable, trouble-free.

**Bay Bumper Jack**  
EASY • SAFE • FAST  
drops wheels clear  
of deep fenders



- Air operated • Steel wheels
- Automatic safety lock
- Heavy duty axle
- 3000 lb. capacity
- Stops at any ht. to 32"

**BAY MANUFACTURING COMPANY**  
BOX 608, HARBOR CITY, CALIF.

Warehouses in Boston & Philadelphia  
Overseas Div. 276 W. 43rd St.  
New York 36, N.Y.



• Free demonstration in your own shop.

## New Products . . .

Continued from Page 133

free operation." It operates by light toe pressure on the Surge-Meter and draws water from a spring-mounted, nonbreakable reservoir.

### 331. Abrasive File

**Monarch Co.:** A new abrasive file is being manufactured by this company. The tool holds a roll of abrasive cloth which is dispensed as needed to provide a fresh cut-



ting surface. The "Red Flash" is practical for deburring and other filing and refinishing operations. It features an 11-inch stroke and comes in a one-inch width.

### 332. Frame Kit

**Tru-Way Co.:** A kit containing a complete set of datum gages, attaching brackets, clamps, level and hand manual for the frame mechanic is being marketed by this company. The manual contains frame dimension charts for 20 makes of cars from 1946 to 1953, plus other pertinent frame data.

### 333. Business Guide

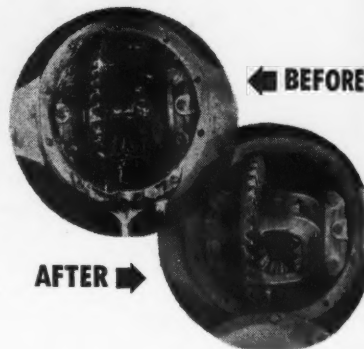
An eight-page folder, reprinted from MOTOR AGE, is available free of charge. The "Business Guide for 1954" includes such information as: U. S. Motor Vehicle Registrations from 1936 through 1953, Total Vehicle Mileage Traveled in U. S., 1953 Production Figures, plus numerous other sales facts and figures.



with **DEE-TEE**

**DIFFERENTIAL-TRANSMISSION-  
OVERDRIVE VAPOR-CLEANING  
SERVICE**

**DEE-TEE\*** eliminates ineffective flushing and hand cleaning by automatically vapor-degreasing differential, transmission and overdrive. It means better gear service for your customers and bigger profits for you. **DEE-TEE\***-serviced gears last longer, too, avoiding costly major repairs.



**Easy to use,** **DEE-TEE\*** automatically degreases gears in only nine minutes, then shuts itself off. Requires no attendant while in use.

**With conventional draining,** tests show that over 20% of old lube remains in gear housings. **DEE-TEE\*** completely removes all old lube; leaves the gears clean and dry. This means you sell more lube oil with each servicing than ever before.

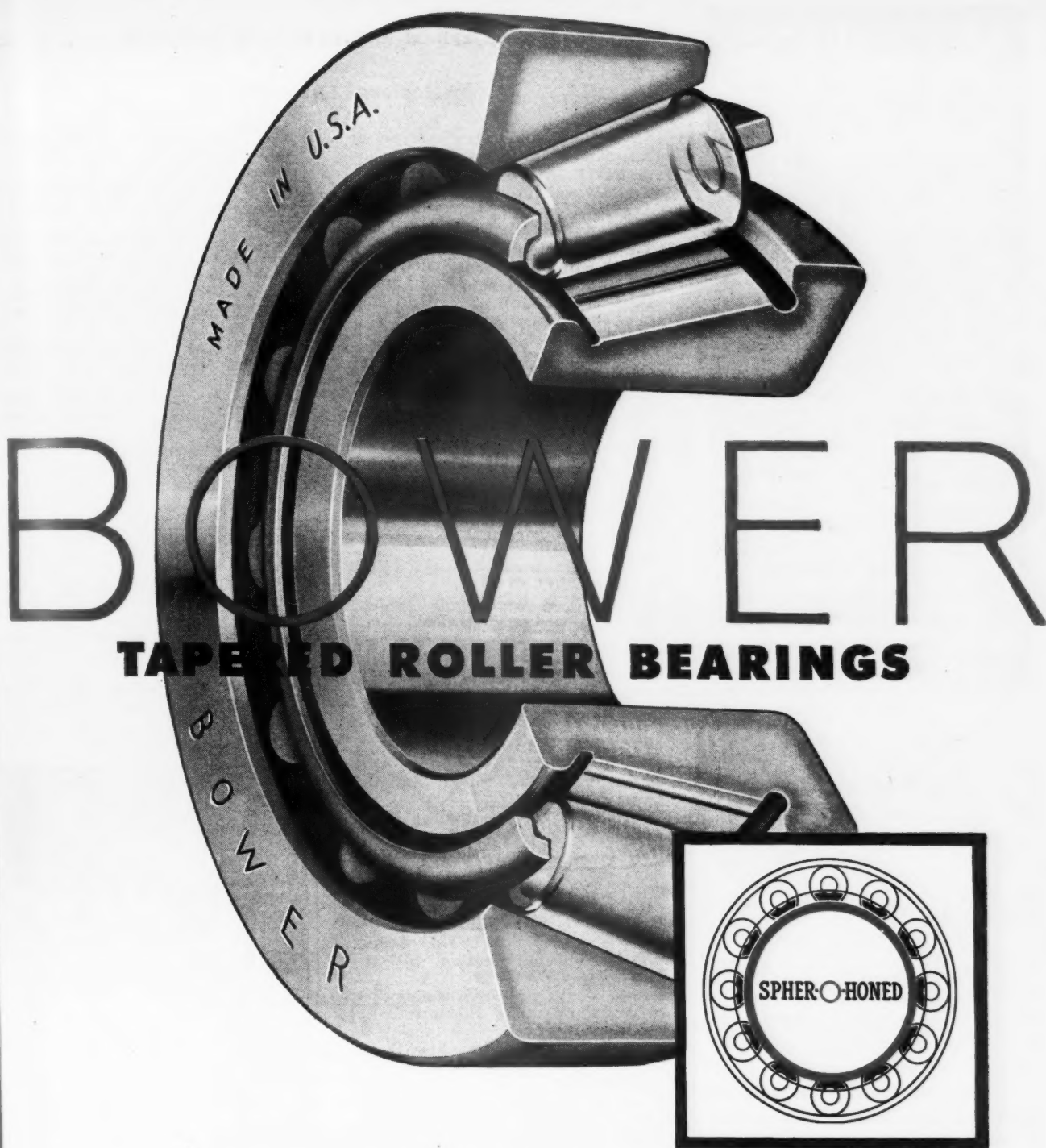
**Take a tip** from over 20,000 **DEE-TEE\*** users and major automobile and oil companies: ask your jobber **TODAY** about new, safe **DEE-TEE\*** servicing.

**NOW! . . . Free Maintenance Guaranteed**

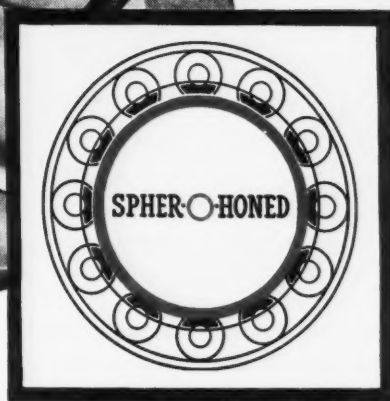


made only by **CURRIER**  
Company  
P. O. BOX 126 • OAKLAND 4, CALIF.





## TAPERED ROLLER BEARINGS



Only Bower roller bearings are Spher-O-Honed. Honed raceways, mating the contour of roll-ends, provide even load distribution. High flange and large oil groove mean positive lubrication; smooth, quiet, durable performance.

Bower Roller Bearings are made available to the automotive service trade as another Federal-Mogul service. Dependable Bower manufacturing *quality* . . . dependable Federal-Mogul *service*. A *double* assurance of satisfaction!



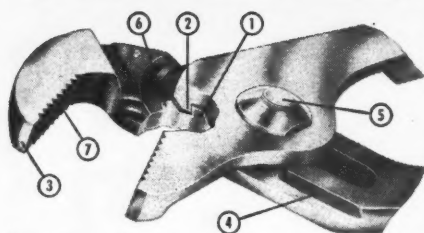
Ask your Federal-Mogul Jobber!

**FEDERAL-MOGUL SERVICE**

Division Federal-Mogul Corporation

DETROIT 13, MICHIGAN

You need fewer  
tools when you  
use...



here's why

1. Interlocking principle prevents slipping under any load.
2. New type wide base lugs cannot shear.
3. New nose design for gripping small objects.
4. Patented design of tension edge eliminates stress concentration at channels.
5. Interlocking design minimizes stress on joint bolt.
6. Precision machined interlocking surfaces result in perfect fit, distributing pressure evenly.
7. "Rite Angle" teeth guarantee maximum bite and minimum wear.

Look for the Channellock line when you're shopping for hand tools. Channellock pliers offer features that you can't get with other makes. And when you buy a Channellock plier, ask to see the full line—you'll find a style and model to do any job better.



THE PLIER DESIGN THAT OBSOLETE ALL OTHERS

CHAMPION D'ARMENT TOOL CO. • MEADVILLE, PA.

## Calendar of Coming Events

### Dealers Conventions

June — Automobile Trade Assoc. of Maryland Convention, Ocean City.  
June 24-27 — Fifth Annual Truck, Trailer, and Equipment Show, Los Angeles.

August—Automobile Dealers Assoc. of West Virginia, Greenbriar Hotel, White Sulphur Springs.

Sept. 10-11 — Colorado Automobile Dealers Assoc., Broadmoor Hotel, Colorado Springs.

Sept. 10-12—Maine Automobile Dealers Assoc. Convention, Samoset Hotel, Rockland.

Sept. 12-13—South Dakota Automobile Dealers Association, Alex Johnson Hotel, Rapid City, S. Dak.

Sept. 12-14—New York State Automobile Dealers' Convention, Saranac Inn, Saranac.

Sept. 16-18—New Mexico Automotive Dealers Assn. Convention, Hotel Hilton, Albuquerque.

Sept. 17—Kansas Automobile Dealers Association, Broadview Hotel, Wichita.

Sept. 19-20 — Automobile Dealers Assoc. of North Dakota Convention, Fargo.

Sept. 20-21 — Minnesota Automobile Dealers Assoc. Convention, Nicollet Hotel, Minneapolis.

Sept. 20-21 — Wisconsin Automotive Trades Assoc. Convention, Hotel Schroeder, Milwaukee.

Sept. 23-24—New Jersey Automotive Trade Assoc. Convention, Atlantic City.

Sept. 28-29 — New Hampshire Automobile Dealers Association, Wentworth-by-the-Sea Hotel, Newcastle, N. H.

Sept. 28-29 — Automobile Dealers Assn. of Alabama, Inc., Convention, Buena Vista Hotel, Biloxi, Miss.

Oct. 3-5 — Automobile Dealers Assoc. of Alabama Convention, Biloxi, Miss.

Oct. 8-9 — Pennsylvania Automotive Assoc. Convention, Haddon Hall, Atlantic City, N. J.

Oct. 10-12 — Texas Automotive Dealers Assoc. Convention, Gunter Hotel, San Antonio.

Oct. 10-12 — Mississippi Automobile Dealers Association, Buena Vista Hotel, Biloxi, Miss.

Oct. 17-18 — Georgia Automobile Dealers Assoc. Convention, General Oglethorpe Hotel, Savannah.

Oct. 17-19—Arizona Automobile Dealers Association, Westward Ho Hotel, Phoenix.

Oct. 17-19 — Tennessee Automotive Assoc. Convention, Peabody Hotel, Memphis.

Oct. 21-23—New Mexico Automobile Show, Albuquerque.

Oct. 23-25 — Arkansas Automobile Dealers Assoc. Convention, Hotel Marion, Little Rock.

Oct. 24-26—Florida Automobile Dealers Assoc. Convention, Hotel George Washington, Jacksonville.

Oct. 26 — Connecticut Automotive Trade Assoc. Convention, Hartford.

Nov. 7-9 — Ohio Automobile Dealers Assoc. Convention, Hotel Mayflower, Akron.

Nov. 7-9—Automotive Trade Association of Virginia, John Marshall Hotel, Richmond.

Nov. 7-9—Kentucky Automobile Dealers Assoc. Convention, Kentucky Hotel, Louisville.

Nov. 14-16—National Used Car Dealers Association Convention, Empress Hotel, Miami Beach, Fla.

Nov. 20 — Utah Automobile Dealers Assn. Convention, Newhouse Hotel, Salt Lake City.

Nov. 29-Dec. 1 — Idaho Automobile Dealers Assoc. Convention, Boise Hotel, Boise.

Dec. 2-4—Montana Automobile Dealers Association, Florence Hotel, Missoula, Montana.

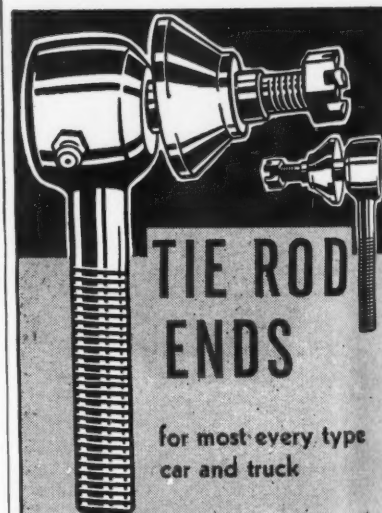
Dec. 8 — Milwaukee County Automobile Dealers Assoc. Convention, Milwaukee, Athletic Club, Milwaukee.

### Automobile Shows

Aug. 16-18 — Society of Automotive Engineers (National West Coast Meeting) Los Angeles.

Oct. 25-27 — Nat'l Assoc. of Independent Tire Dealers, Sherman Hotel, Chicago.

Dec. 6-7 — National Standard Parts Assoc., Hotel Sherman, Chicago.

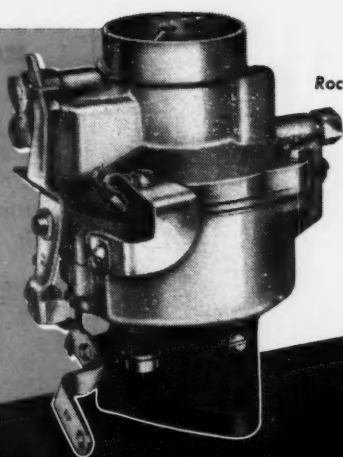


**Wohlerl**  
Corporation  
LANSING 5 MICHIGAN

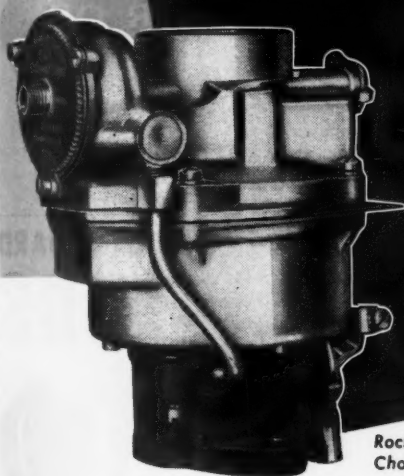
WOHLERT PARTS have been installed universally for over 30 years by Independent Repairmen, Fleet Owners and Car Dealers. They have been COMPARED & COPIED.



**right**  
**from the start...**

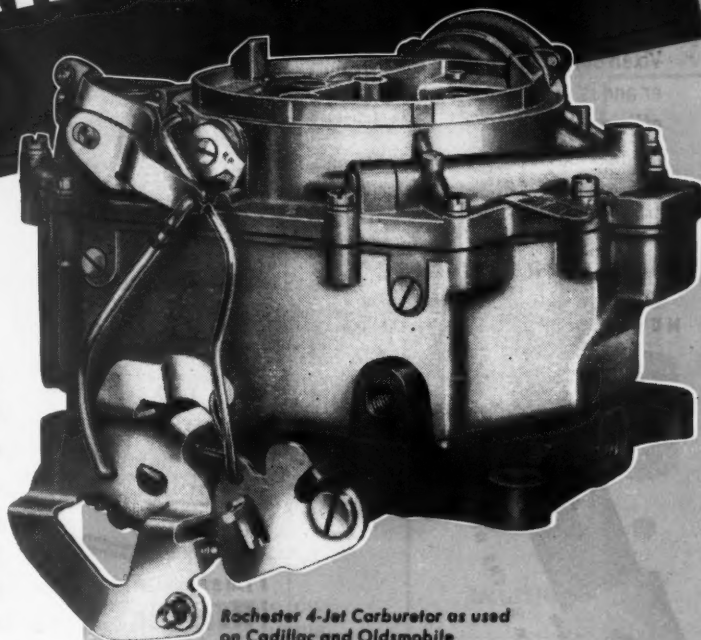


Rochester Manual Choke Carburetor as used on Chevrolet trucks



Rochester Automatic Choke Carburetor as used on Chevrolet passenger cars

# ROCHESTER CARBURETORS



Rochester 4-Jet Carburetor as used on Cadillac and Oldsmobile

**YES, right from the start** Rochester Carburetors were designed, engineered and built by Rochester Products to give greater performance and economy. That's why, *right from the start* of the car's engine, every Rochester Carburetor automatically does a better job regardless of speed, load and operating temperatures . . . and continues to do so with a minimum of service.

## PERFORMANCE FEATURES

- NO FUEL LOSS ON ANY INCLINE
- SMOOTH ACCELERATION WHILE TURNING
- EASIER STARTING IN HOT WEATHER
- CONTINUOUS FUEL FLOW—NO LAG
- POWER MIXTURE READILY AVAILABLE

## SERVICE FEATURES

- FEWER PARTS TO SERVICE
- NO METERING ADJUSTMENTS REQUIRED
- PERMANENT IDLE TUBE—NO SERVICING
- NO WEAR AT JET ORIFICE

**ROCHESTER PRODUCTS** DIVISION OF GENERAL MOTORS  
ROCHESTER, N. Y., U. S. A.

ALSO MANUFACTURERS OF ROCHESTER CIGAR LIGHTERS AND GM STEEL TUBING





# VIXEN files leave a smooth finish



The wide pitch and deep gullets of Vixen milled curved teeth make it easy for filings to curl up and drop free every time the file is lifted from the work. This prevents clogging, loading and resulting scratches on the work. Vixen cuts faster, freer, smoother and is recognized as the most efficient file ever designed for automobile body manufacture and repair. It's the original and still the best.

**HELLER BROTHERS CO.**  
America's Oldest File Manufacturer  
NEWCOMERTOWN, OHIO



Your Heller Distributor Can  
Supply All Your File Needs

**ONLY HELLER  
MAKES THE VIXEN**

VIXEN, NUCUT and  
American-Swiss  
are made only by



## ROYCE G. MARTIN

Mr. Martin, President and Chairman of the Board of The Electric Auto-Lite Company, died of a heart attack recently in Lexington, Kentucky. He had been with the company as President



since 1934, when the Moto-Meter Gage and Equipment Corp. merged with Auto-Lite.

## Speed Truck Tire Changes JOB-DESIGNED WITH **KEN-TOOLS** EASIER...QUICKER

Quality tools for trucks, buses, farm tractors, and aircraft. Hand forged from chrome nickel alloy steel. Tougher, last much longer!

- T-19 24" Truck and Bus Straight Spoon
- T-20 24" Truck and Bus Curved Spoon
- T-29 18" Tool for starting first bead down over rim
- T-48A 40" Tool for removing and replacing lock rings
- KEN-TOOL LOCK RING REMOVERS**  
stand up under tremendous leverage
- T-23 24" For Firestone RD, R-1 Rims
- T-25 New 18" Ring Remover for 5° Firestone Rims
- T-22 18" Combination Lock Ring Tool
- T-27 18" Ring Tool for R-1 Rims

SEE YOUR JOBBER on the complete line of Job-Designed Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.

**JOB-DESIGNED  
KEN-TOOLS**  
TIRE-CHANGING  
TOOLS KNOWN, USED  
AROUND THE WORLD

#106 PLIER  
removes  
Q. M. ham-  
dies, \$1.00

#101 PIN  
DRIVER re-  
moves han-  
dies cars us-  
ing cross pin,  
\$1.00

#125 CLIP  
REMOVER,  
removes  
horses hoe  
clip on in-  
side handles,  
\$1.00

#107 PANEL  
CUT-  
TER,  
revers-  
ible blade,  
\$4.75

Write for complete catalog Douglass tools  
**DOUGLASS TOOL COMPANY**  
5251 Pattison Avenue — St. Louis 10, Missouri

**PIONEER OF  
PRE-RUN-IN,  
Measured  
PIN FITS**

**OVERSIZE AND STANDARD  
REAR WHEEL STUDS**  
for all Trucks  
ORDER FROM YOUR JOBBER

**CHAMP-ITEMS, Inc.**  
6191 Maple Ave.  
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SEND  
FOR  
CATALOG

WAIT MISTER -  
DON'T GIVE HIM A "SOCK",  
TELL HIM ABOUT -  
**SOUTHERN  
FIBER BLOCK**

ONLY  
SOUTHERN  
MAKES MOLDED  
BRAKE LINING  
IN THE SOUTH

**SOUTHERN**  
FRICTION MATERIALS CO. CHARLOTTE 1, N.C.

**BUY BONDS**



Factory Equipment

# HYDRAULIC VALVE LIFTERS

for General Motors Cars

**NOW**  
Distributed by



**SPARK  
PLUG  
DIVISION**



Your established source for AC Quality Products is now also your source for GM factory-equipment Hydraulic Valve Lifters—a step taken to increase convenience to you and speed up availability of these precision components to service operations everywhere.

These lifters are engineered and manufactured to give long and trouble-free service. They assure:

- 1 Tappet clearance noise elimination.
- 2 Elimination of valve clearance adjustments.
- 3 Longer valve life by elimination of pounding.
- 4 Smoother engine performance due to precise control of valve timing.

**Made by DIESEL EQUIPMENT DIVISION**

*Distributed by*

**AC SPARK PLUG DIVISION**  **GENERAL MOTORS CORPORATION**  
FLINT, MICHIGAN



Packed in identical cartons as used by GM car divisions, each lifter's precision finish is protected by a tough peel-off plastic coating that permits rust-proof storage in any climate.



EXPLODED VIEW OF  
GM HYDRAULIC VALVE LIFTER



## NEW HUOT TULDEX

The TULDEX is an entirely new idea for protecting and locating tools. It was designed particularly for the master mechanic who appreciates and wants the best of care and protection for his equipment. Saves those many hours that are lost hunting for a misplaced tool.

Six tool holding panels, 12" x 20", are made of tempered, perforated hardboard and move on separate tracks with geared, self-lubricating nylon bearings. Doors swing completely out of the way when open. Panels and doors together have more than 24 square feet of tool storage area—twice as much as most tool chests! Top and bottom locks are built-in.

The cabinet of heavy steel is finished in attractive blue and grey baked enamel and is grease proof. The big drawer is just right for power tools or bulky items. You can place the Tuldex on a bench, hang it on a wall or mount it on top of a portable Huot Porta-Cab. Overall size: 29" x 26" x 13 3/4".

Ask your jobber,  
or write for bulletin.

Made by America's leading manufacturer of  
"Modern tool storage systems for modern tools."

**HUOT**

HUOT MANUFACTURING CO.

585 No. Wheeler St., St. Paul 4, Minn.

## Packard to Build Bodies at Briggs

Packard Motor Car Company will begin building its own bodies the latter part of June in the Detroit manufacturing facility known as the Briggs-Conner plant. The new Packard facility was acquired by Chrysler Corporation last December 29 in the purchase of Briggs Manufacturing Company's automotive plants. It is being acquired under a five-year lease agreement, including an option to purchase, with Chrysler.

## L-M Mobile School To Train Mechanics

Beginning of a program under which Lincoln-Mercury dealers' auto mechanics will be further trained in factory-approved methods of car repair and maintenance right in their own service shops was announced today by G. H.

Schricker, Atlanta district sales manager for the Lincoln-Mercury Division.

Mr. Schricker said district service instructor D. J. Kennerly has been equipped with a "school on wheels"—a 1954 Mercury station wagon which will be used to transport training aids, special tools and other instructional material to dealerships in the Atlanta district.

At each dealership, Mr. Kennerly will conduct on the job training for all dealer service personnel that previously was given in the Lincoln-Mercury service school at Atlanta.

Mr. Schricker pointed out the new program not only will enable more mechanics to receive factory training but it will also eliminate the costs incurred by dealers in sending personnel to Atlanta to attend the training courses.

**Motor vehicles in the U. S. traveled about 547 billion miles in 1953. At 50 miles per hour, it would take one car 1,250,000 years to cover that distance.**

### For your convenience the OFFICIAL RENAULT FACTORY PARTS DEPOT

Has been relocated at  
32-65 60th Street,  
Woodside 77, L. I., N. Y.  
Tel.: Astoria 8-4500



Genuine Renault factory parts can be obtained only from this depot or an authorized Renault dealer.

- Guaranteed 24-hour service
- Liberal discount to garages and service stations

Parts price list, shop manual and technical data available. Mail coupon below today:

RENAULT FACTORY PARTS DEPOT, Dept. M  
32-65 60th Street, Woodside 77, L. I., N. Y.

Gentlemen: Please send me information on official Renault price list, shop manual, and technical data.

Name.....  
Address.....  
City.....Zone.....State.....

**Wohlert**  
Corporation  
LANSING 5 MICHIGAN

has been  
supplying  
automotive parts  
universally to  
Independent  
Repairmen  
Fleet Owners  
and  
Car Dealers  
for over  
30 years

*They have been*

COMPARED  
and COPIED





# Once in a lifetime

*(Sometimes not even then!)*

## an opportunity to get in on the ground floor

**Hudson Motor Car Company**, which has built many of the truly great cars in the history of the Industry, today is a division of American Motors Corporation.

Tremendous things are taking place at Hudson. You can feel it in the air . . . excitement . . . expectancy . . . enthusiasm. It's extending out from Detroit to automobile rows all over the nation.

For today, back of the famous Hudson know-how and strength, are new and vast resources of styling, design and materials; of new engineering and fabricating facilities; and the finance and management of the strong, new American Motors Corporation.

Men are beginning to write Hudson about dealer franchises. These are men who have found that the only difference between foresight and hindsight is how soon you recognize a big idea. If it's in time, it's *foresight*. If it's too late, it's *hindsight*.

These are men who see ahead a new future, another bright and shining opportunity to get in on the ground floor—and grow and prosper. Such an opportunity comes to a man, if it comes at all—once in a lifetime.

Here is a franchise with tremendous opportunities for today and tomorrow. For full information about a Hudson franchise, and how you can get in on the ground floor, write today to: C. A. J. Hadley, sales manager, Hudson Division, American Motors, Detroit 15, Mich.

**HUDSON**  
DIVISION OF  
**AMERICAN  
MOTORS**

# New smoke signals from Chief WAUSAU



**WAUSAU MOTOR PARTS COMPANY**  
**Wausau, Wisconsin**

Rush me complete information on Wausau's Introductory Bonus!

NAME \_\_\_\_\_

BUSINESS NAME \_\_\_\_\_

BUSINESS ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

ZONE \_\_\_\_\_

STATE \_\_\_\_\_

mail 'em coupon now  
FOR  
HEAP BIG BONUS OFFER!

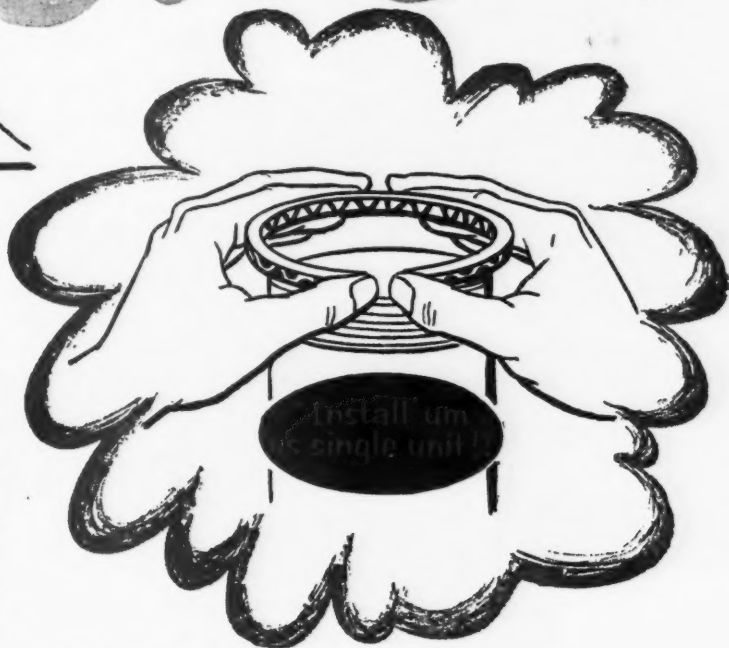
The Wausau Bonus Offer gives you  
extra profit every step of the way.  
This, plus Wausau's Bonded Warranty  
and consumer promotion, makes it  
an opportunity you can't afford to miss.  
So don't delay . . . write today!

# FAMOUS WAUSAU *Oil-savr* RINGS NOW

## MONOTIZED\*

U. S. Patent No's. 2,140,710 and 2,323,815

### AND CHROME CLAD!



\*Install 'um as single unit

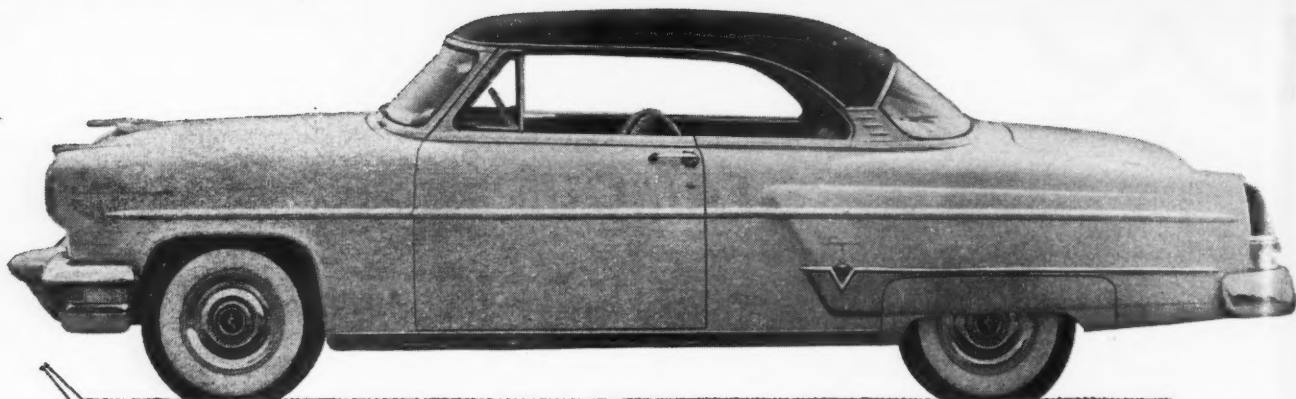
#### GET HEAP BIG PROFITS!

That's right—today's big news in piston rings is Wausau's MONOTIZED Oil-savr ring. MONOTIZED is the patented Oil-savr feature that makes a multiple-piece ring a one-piece ring. With this exclusive process, the three-ring components are bonded together with a special adhesive that dissolves during the first engine run, permitting the components to separate and form a perfect contact with the cylinder walls. You install Wausau MONOTIZED Oil-savr rings speedier, easier, and without error. In addition, Wausau MONOTIZED Oil-savr rings are Chrome Clad to reduce wear and have that famous

Oil-savr feature...a non-clogging, phosphor bronze safety center unit that runs free and cannot score. All Wausau MONOTIZED Oil-savr rings come in Custom Made Sets with Chrome Top Rings—each set individually engineered for each job. Wausau Motor Parts Company, Wausau, Wisconsin.

stock 'um...you'll sell 'um more in '54 !!





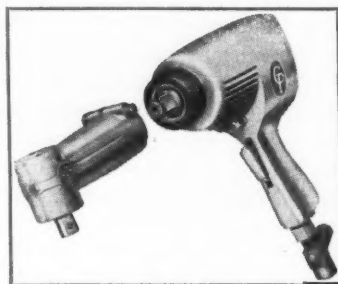
Ed Odenwald  
Service Manager of  
Jamaica Lincoln & Mercury Corp.  
Jamaica, New York says:



**"One CP  
Air Impact Wrench  
Has Already  
Saved Us  
\$3,000"**

"Every new car that leaves our shop is undercoated," says Service Manager Ed Odenwald. "We estimate that the one CP Air Impact Wrench used to change wheels for this operation cuts each undercoating  $\frac{1}{2}$  an hour — a saving thus far of \$3000." Of the other 21 CP Air Impact Wrenches that his men use every single day, Mr. Odenwald says, "Even though many of our CP Air Impact Wrenches are five years old, we aren't bothered with maintenance trouble. Their Controllable Power feature lets us run up wheels and cylinder head nuts to correct uniform tightness . . . and in much less time!"

How right you are, Mr. Odenwald! CP Controllable Air Impact Wrenches not only can be preset to turn nuts and screws to predetermined uniform tightness, but they have plenty of extra power when you need it. Small in size, and furnished with attachable angle heads for those ratchet wrench spots, they're available in  $\frac{1}{2}$ ",  $\frac{5}{8}$ ", 1" and  $1\frac{1}{4}$ " bolt size models. Write Chicago Pneumatic Tool Company, 8 East 44th Street, New York 17, New York.



  
**Chicago Pneumatic**

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC TRUCK JACKS AND PUMPS • ZIP-GUNS, FENDER IRONS AND BEAD BREAKERS

"SO EASY TO SPRAY..."

# LION Nōkōrōde

UNDERCAR SEALER AND SILENCER  
Saves Me TIME, TROUBLE, MONEY"



## Dealers like it... spray men like it!

...because Lion Nokorode is sprayed on thinner (1/16"), dries faster, lasts longer, goes farther... Makes the whole operation from application of pressure to the clean-up job *easier, more economical*. Nokorode is a *concentrated*, Uniform Undercar Sealer and Silencer that assures you of customer satisfaction... and at the same time gives you 50% more undercoating jobs from every drum!



Made from start to finish and guaranteed by Lion Oil Company. For complete details about Nokorode and how you can increase undercoating profits, clip this coupon NOW, and mail to Lion Oil Company, El Dorado, Arkansas.

Made under the process of U. S. Patent No. 2393774

by

### LION OIL COMPANY

EL DORADO, ARKANSAS



- Lion Oil Company
- Dept. MA-F
- El Dorado, Arkansas

- Please send me free complete information about
- Lion NOKORODE, the quicker, easier, more
- economical Undercar Sealer and Silencer.

● Name \_\_\_\_\_

● Street \_\_\_\_\_

● City \_\_\_\_\_ State \_\_\_\_\_

# For *automatic* carburetor and small parts cleaning...

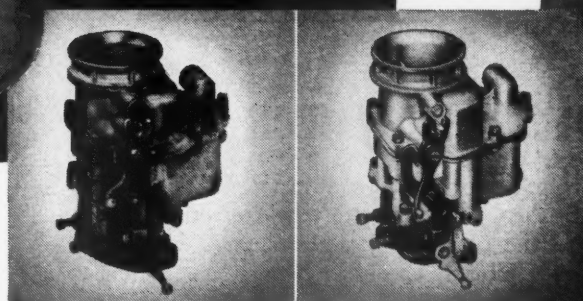


**SOLVENTS plus  
TURBULENCE**  
do the job faster...  
better...cheaper.

Here's the *new* way... the *better* way to handle carburetor and small parts cleaning. **JETISOIL**, a *new*, miracle working compound by **TURCO**, combines with the *new* **TURCO JET ACTION** cleaner to do these troublesome jobs *automatically*. The whole operation is simple, positive and effective. No more hand scrubbing or dipping...no more unpleasant odors. You'll cut costs...you'll step up quality...*automatically*...and all at a low, low price you can afford to pay!

**LOAD IT!  
FORGET IT!**

- No unpleasant odor!
- No hand dipping!
- No hand scrubbing!



**Low Cost  
JETISOIL  
Compound  
assures  
maximum  
results!**

**VALUABLE JOBBER FRANCHISES AVAILABLE** Here's your opportunity to tie in with the fastest selling equipment development in the automotive field. A few choice jobbers territories available. Write, wire or phone for details.

#### SEND FOR FREE BOOKLET

Get the *complete* story... get the *full* story on miracle working Jetisoil and Turco's *new* Jet Action cleaner. Write for your *free* copy today!



**TURCO PRODUCTS INC.**

Chemical Processing Compounds

6135 SO. CENTRAL AVENUE • LOS ANGELES 1 • CALIFORNIA  
Factories: NEWARK • CHICAGO • HOUSTON • LOS ANGELES





# *I use **GRIZZLY** to protect my customers ... and to protect myself !*

Every product that carries the Grizzly Bear Symbol is made to Grizzly's standards of high performance and long life.

**For bonding . . .**

SAFTIBOND-SILVERTIP AND SAFTIBOND-SYNCRE

**For riveting . . .**

SILVERTIP AND SYNCRE-SETS

**For trucks . . .**

SILVERTIP HEAVY DUTY BRAKE BLOCKS  
(for longer mileage with less drum wear)

"In four years at this corner I've built up a good loyal trade of neighborhood people. Right from the beginning I've had a good mechanic and I've stocked nothing but first class parts, and the folks around here seem to appreciate that. That's why Grizzly brake lining fits right in with my operation. My customers recognize the name Grizzly from ads in the big magazines. They know that Grizzly makes a good lining, and has been doing so for years. I don't have to worry about re-lining jobs, because I know that Grizzly is just as careful about their reputation for quality as I am about mine . . . so everything works out swell. The customers are happy about Grizzly performance and long life, so I'm happy to sell Grizzly!"

Grizzly Manufacturing Division, Paulding, Ohio

BEAR IN MIND



... ASK FOR

# GRIZZLY

REG. U. S. PAT. OFF.

# BRAKE LINING

NATIONALLY ADVERTISED! Your customers and prospects see Grizzly SILVERTIP advertised regularly in THE SATURDAY EVENING POST, COLLIER'S and POPULAR MECHANICS. And Grizzly follows through with colorful, effective selling helps.



[illegible]

A collection of various automotive parts and tools, including a battery, a carburetor, a spark plug, a wrench, a screwdriver, a hose, a filter, a pump, a belt, and a can, arranged on a dark background.

[illegible][illegible]

Continental  
Manufacturing  
Corporation

Sept. 10-12, Washington Blvd.  
at Belmont Ave., Silver City, Calif.

time history, with a legitimate on-year bonded guarantee. The only really outstanding value on the market today: One price for all cars and standard trucks. \$25.95 for six-volt units, \$29.95 for 12-volt units (plus a complete line of marine and industrial batteries). If you're a dealer, doesn't the Life-Time battery sell. \$10.00 a dozen? Or, show him this page and ask him to order one for you - or write us for the name of your nearest Life-Time battery dealer.



## HE FOUND \$2,000

WITH McCASKEY CONTROLS

That's Bill Hatfield, Hatfield Bros., Fort Wayne, Indiana. In December, 1952 he was told that with the McCaskey D-102 "Blue Ribbon Automatic Bookkeeper," made especially for the filling station, he should make an extra \$1000 per year by eliminating shortages on gasoline and developing charge account business on a McCaskey controlled basis.

Thirteen months later, February, 1954, Bill Hatfield knew the answers. Said he:

"Looked at other registers but decided to buy the McCaskey because it was the most complete system and the best buy for my money.

"It is now thirteen months later and I am most happy to tell anyone and everyone that THIS SYSTEM HAS NOT ONLY PAID FOR ITSELF—BUT HAS BOUGHT AN EXTRA \$2000 WORTH OF EQUIPMENT DURING THIS PAST YEAR WITH ABOUT THE SAME VOLUME OF BUSINESS."

Hatfield Bros., High at Runnion, Fort Wayne, make money on their McCaskey—it produces!

In your service station—in your repair garage—in your business where you supply automotive needs ranging from gasoline and oil to parts and labor . . . McCaskey COMPLETE SYSTEM makes practical control easier and simpler.

- You item-add your transactions mechanically and **KNOW YOU ARE CORRECT!**
- You print your charge sales records and **KEEP ACCOUNTS BALANCED TO DATE!**
- You detect shortages in gasoline and oil, accessories and parts and **RECOVER LOSSES BEFORE YOU SUFFER FINANCIALLY!**
- You **CERTIFY** necessary receipts and paid-outs and control them!
- You have your fingers on the business—**WHETHER YOU ARE THERE OR NOT!**

**ARE YOU WITHOUT THE THOROUGHNESS OF McCASKEY COMPLETE CONTROL? YOU PAY FOR IT ANYWAY! ASK TO SEE WHY McCASKEY ADVANTAGES MEAN SO MUCH TO YOU.**



McCaskey Register Division, Alliance, Ohio

SEND INFORMATION ON THE PRODUCTS CHECKED:

- ☐ McCaskey Gasoline Shortage Control Cash Register System
- ☐ McCaskey Charge Account Control System

- ☐ McCaskey Steel Safe
- ☐ McCaskey Portograph and Sales Books

NAME..... ADDRESS.....

CITY..... STATE.....

**McCASKEY REGISTER DIVISION, Victor Adding Machine Co., ALLIANCE, OHIO**

In Canada, Galt; in England, Watford



you always win with the **KING LINE**



There's never a gamble involved when you standardize with the KING line—34 years a profit-maker. See your jobber!

"BUILDING FOR THE FUTURE ON A 34-YEAR RECORD"

**KING QUALITY**

PISTONS • PINS • VALVES • BEARINGS • WATER PUMP PARTS • BOLTS  
BUSHINGS • SILENT-U SHACKLES • SLEEVES • WHEEL SUSPENSION PARTS

**SAINT LOUIS 10, MISSOURI**



**extra strength** of gasket  
paper combined with recovery of cork

**FELCROID**  
**Test Report #1232**

Oil Pan Gasket  $\frac{1}{8}$ " T.  
Felcroid was dynamometer  
tested under very severe  
conditions of high temper-  
atures and heavy loads.

**RESULT:** Inspection during  
engine test showed far less  
compression set and torque  
loss. No leakage occurred.  
Upon removal no particles  
adhered to block or pan.

**easier engine work...**

... comes off the oil pan in  
one piece... no particles  
fall off... no need to scrape  
pan or block!

**bend it, flex it...** yet  
you'll never crack it!

**never shrinks** or expands  
out of shape due to  
atmospheric conditions

**easily folded** and  
therefore can be packaged in smaller,  
easier-to-handle, easier-to-store cartons.

**always fresh,** never dries  
out or becomes brittle,  
no matter how long stored

**will not distort pan** at bolt holes  
when normal torque is applied. Felcroid  
is made of semi-rigid material... gasket  
will stay in place during installation.

**FELCROID**  
**Test Report #1240**

$\frac{1}{8}$ " T. Chrysler Oil Pan side  
gasket made of Felcroid  
was sealed in small folder  
and placed in oven at  
100°F. continuous temper-  
ature for 137 hours.

**RESULT:** Felcroid held its  
dimensions perfectly...  
was not damaged at fold.

a scientific improvement  
that provides a better oil pan gasket...

it's made of **felcroid** the newest **fel-pro** achievement in...

Yes, science improves the oil pan gasket! Fel-Pro's special formula makes Felcroid so tough, you can bend it, flex it, fold it, without affecting its sealing power.\* Yet, it "gives" and has the "comeback" qualities of cork. Felcroid means better, easier engine work because of the many features shown above. Felcroid means "always ready, always fresh" because your jobber can store it longer without shrinkage

or expansion. Felcroid means faster, easier handling of entire Fel-Pro Gasket sets... head sets, oil pan sets, full sets, push rod cover sets... because this amazing new material can be FOLDED to fit into smaller cartons. No longer does the large, unwieldy oil pan gasket dictate the size of the entire gasket-set carton! Be sure to specify Felcroid by name when you order from your jobber!

\*Felcroid is a homogeneous material, combining cork granules and vegetable fibres, treated by a special formula to make it impervious to gas, oil and water.

**gaskets**

FELT PRODUCTS MFG. CO., 1521 Carroll Ave., Chicago 7, Ill.





## special heat resistance

Because new D-X *Special* Motor Oil is "Weather-Proofed" with new additives to give it as high or higher a viscosity index than the world's best SAE 30 oils.

## special starting protection

Because D-X *Special* flows like a 10w oil to reduce the wear of dry metal against metal in starting.

## special valve care

Because it's an S-1 oil in additive treatment—the highest. D-X *Special* Motor Oil keeps carbon, gum, and other "chatter" deposits off hydraulic valves.

## special profit margin

D-X *Special* 10w/30 Motor Oil sells at a premium price to give you a premium profit. It reduces your oil inventory! It's sold with our money-back guarantee!

## investigate special now

Call your D-X salesman or D-X distributor immediately or write our Tulsa office. We're selling D-X *Special* Motor Oil in the biggest advertising campaign of our history. Make it sell for you, too.

MID-CONTINENT  
PETROLEUM  
CORPORATION  
Tulsa, Oklahoma



## *From the* AIR AGE *Comes a true* AUTO ELECTRONIC ANALYZER

*Elan INC*



## *Elan INC* BRINGS YOU *the* FIRST

Aviation tested engine analyzer for the automobile industry. . . . From "Annie's" picture patterns direct readings are taken. No technical training is needed to get at the facts of engine trouble with "ANNIE" because she gives you the facts—no conversion from meter readings required. . . .

Engine malfunctions are pin-pointed by one simple test. . . .

- ★ IGNITION
- ★ CARBURETION
- ★ COMPRESSION
- ★ Simple to use
- ★ Simple to read
- ★ ONE BASIC PATTERN

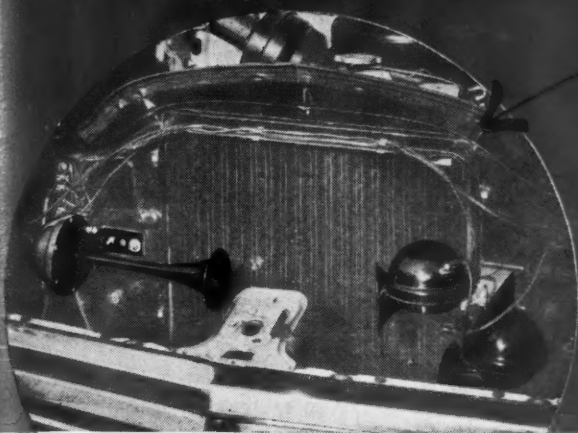


BLDG. 645 OAKLAND AIRPORT  
OAKLAND, CALIFORNIA

*Elan INC*

GET IT THROUGH YOUR JOBBER





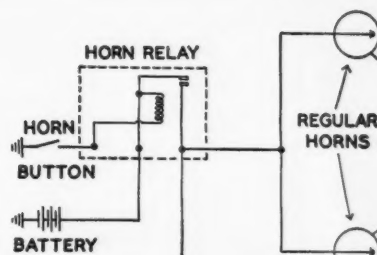
This third horn makes  
the safety difference  
in **HIGHWAY** traffic

## WINNING TRIO

**Sparton** **3-D**  
THE BOOSTER HORN

### 300% INCREASE IN WARNING POWER

Motor car horsepower has increased 72 percent since 1930. Number of cars on the road has doubled. Horn power has not kept pace. Standard horns are too low, too weak for the hazard of modern traffic. By installing the new Sparton 3-D booster horn under the hood with the present dual shell-type horns, horn warning power is stepped up 300 percent! Together the three horns make a winning trio—they win safety for motorists, sales for you!



THE SPARTON  
3-D BOOSTER HORN  
**EASILY INSTALLED WITH  
PRESENT HORNS**

The Sparton 3-D booster horn may be added to the dual shell-type horns found on most modern cars. It is low in cost, easy to install.

### ANGER

Traveling sixty miles an hour with windows closed (radio and heater off) the driver in the car ahead can't hear your warning signal given by standard horns until your car is wheel to wheel with his.

### SAFETY

Installed with present dual shell-type horns, the Sparton 3-D booster horn blows in unison with them. When you press your horn button you get a harmonious, penetrating signal that the driver in the car ahead, traveling sixty miles an hour, can hear three car lengths before you pass.

MAKERS OF  
QUALITY  
AUTOMOTIVE  
EQUIPMENT  
SINCE 1900

**Sparton**  
AUTOMOTIVE

Division of  
THE SPARKS-WITHINGTON  
COMPANY

JACKSON,  
MICHIGAN

hear it!

Send coupon for free phonograph record and hear how the Sparton 3-D horn boosts horn power.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

THE BETTER  
GUIDE FOR

*Best Selling!*

*Airguide*  
**AUTO COMPASS**



with  
many superior  
features that make  
it a sure seller . . .

SHOWN HERE  
ACTUAL SIZE  
DIAM. 2 3/8"  
HT. 2 3/8"  
BRACKET  
2 3/4" LONG

**SMARTLY STYLED**

Case in choice of soft gray or brown is handsomely modeled to harmonize with today's beautiful car interiors.

**EASIER-TO-READ DIAL**

Novel jet black Visi-Dome dial with large pure white markings has excellent visibility from any angle. Calibrated to 5° for finer readings.

**SUPER POWER ALNICO V MAGNET**

Finest magnet known, has 10 times coercive force of finest steel magnets and 3 times the residual induction. Gives faster, steadier readings.

**AIRPLANE TYPE COMPENSATORS**

An 8 magnet system, proven superior in years of aircraft use. Simple adjustment, unaffected by vibration. Non-magnetic compensator key with each compass.

**COMPLETELY UNIVERSAL MOUNTING**

Double ball and socket mounting provides most flexible adjustment for any car. Easily and quickly mounted to either concave or convex molding.

**EDGE LIGHTED FOR NIGHT USE (Optional)**

When lighted, dial has a soft green glow which is most attractive and highly visible. (For 6 or 12 volt systems.)

**PRICED TO SELL • Retail \$5.95 With Light \$6.95**

*Ask your Automotive Gobbler*

MADE  
AND GUARANTEED  
BY MFRS. OF THE FAMOUS  
LINE OF AIRGUIDE WEATHER INSTRUMENTS

FEE AND STEMWEDEL, INC., 2210 WABANSIA AVE., CHICAGO 47, ILL.



# JUST THE CARBURETOR PARTS YOU NEED FOR TOP TUNE UP



CPA 100 — durable  
metal cabinet serves  
as a display, or as a  
storage cabinet. Cover  
can be closed and locked.

## HYGRADE TOP TUNE UP MERCHANDISER

Gasket Packets, Needles and Seats, Pump Piston Plungers — the parts you need for a simple overhaul or a complete rebuilding job — partitioned with index cards and labels so you can find the right part in an instant. Plenty of room for more numbers and/or additional stock. All parts are individually packaged so there's no waste.

Write for catalog sheet HF491  
describing special price offer, free dealer help.

**HYGRADE PRODUCTS DIVISION**



**Standard Motor Products, Inc.**  
37-18 Northern Blvd.,  
Long Island City 1, N. Y.

# TRIPLE-FIT

Accurately Engineered — all three ways — for Each Particular Car



## MECHANICAL FIT



Each Soundmaster muffler is engineered to fit all the dimensional requirements of a specific make and model. Soundmaster fit goes beyond mere length of shell and size of inlet and outlet. *Shape* of each head and shell is engineered for proper clearance on the car. *Location* of inlet and outlet is right for quick, easy, stress-free connections. That's why Soundmaster Triple-Fit Mufflers mean Fast Installation Time and more profit for the dealer—and a safer, better installation for the car-owner, every time!

## ACOUSTICAL FIT



No one, two or three types of mufflers can possibly give really good sound control on all cars. That's why Soundmaster engineers design each muffler *from the ground up* —to fit the engine performance of each make and model. With unsurpassed laboratory and field equipment, Soundmaster engineers construct the muffler to control not only total exhaust noise, but also the irritating individual sounds which occur at different speeds and loads. On any car, Soundmaster delivers *full-range* sound control!

## HORSEPOWER FIT



Each Soundmaster is engineered to keep backpressure down and horsepower up. It's a well-known fact that certain noise problems can be whipped by devices that increase backpressure. But Soundmaster engineers know that excessive backpressure steals horsepower, leads to engine overheating, sludging and sluggishness. That's why each Soundmaster Muffler is engineered for correct backpressure with a specific engine . . . and to give the quiet performance the customer wants.

## NEW! Soundmaster EXHAUST Extension



Here's a real seller, in its own right—and a great sales starter for mufflers and pipes as well. Exclusive universal design fits all cars, and all pipe sizes, from 1½" to 2¼". Fast-moving—profitable!

● These are the qualities that make Soundmaster Mufflers a great value for the car-owner—a real profit-maker for the repairman. "Triple-Fit" means Fast Installation Time; Full-Range Sound Control, with Maximum Power Output.

Next muffler job you have, call your NAPA Jobber for the triple-fit muffler—Soundmaster!

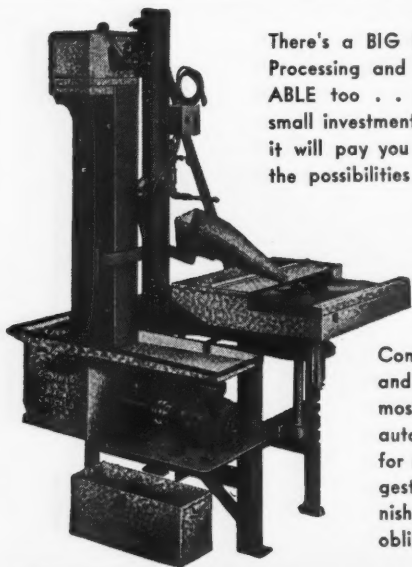
DEKOVEN MANUFACTURING COMPANY • RACINE, WISCONSIN

# Soundmaster

**TRIPLE-FIT**  
**MUFFLERS • PIPES • ACCESSORIES**



## AUTO GLASS . . . a new source of Profit



There's a BIG MARKET in Auto Glass Processing and installing . . . PROFITABLE too . . . All this with a very small investment. Now, as never before, it will pay you to carefully investigate the possibilities in this service.

### "TWO in ONE" AUTO - GLASS EDGER No. 20B-106FB12

Combination Abrasive Belt and Roughing Plate. The most popular machine for auto glass work. Write us for recommendations or suggestions, they will be furnished promptly and without obligation.

**SOMMER & MACA Glass Machinery Co.**  
Automotive Department  
3624 SOUTH OAKLEY AVENUE CHICAGO 9, ILLINOIS

## THE MARKET'S WIDE OPEN

for multiplying  
your opportunities



**Rubbermaid  
KAR-RUGS**



## "Knock-Out" Valve Refacer



MODEL  
K403

SEE YOUR  
AUTHORIZED  
K. O. LEE  
DISTRIBUTOR  
OR WRITE  
FOR  
COMPLETE  
LITERATURE

### features:

- Grinds wet or dry
- Valve stem range  $\frac{1}{4}$ " to  $1\frac{1}{16}$ " with three collets
- Five-inch grinding wheel
- Valve head capacity up to  $3\frac{1}{2}$ ", within valve stem range
- V-type table ways requiring no adjustment for wear
- Zero to 90° positive-stop face angle settings—with minus 1° for any angle
- Collet-type work head with controlled rpm's
- Concealed coolant system
- Right-hand table traverse arm
- Precision built for accuracy!

**K. O. LEE COMPANY, ABERDEEN, SOUTH DAKOTA**  
WET VALVE REFACERS • VALVE SEAT GRINDER SETS • VALVE SEAT INSERTS  
RESEATER SETS • ROD ALIGNERS • STUD WRENCHES • DRILLS • SANDERS  
POLISHERS • HAND GRINDER SETS • REAMER DRIVES • A.C. WELDERS



BATTERY CONDITION  
TESTER NO. 638

Get This Handy New

## HOYT BATTERY CONDITION TESTER

for 3-Way Tests on  
BOTH 6V and 12V  
Batteries

1. Load Method
2. No-Load Method
3. Voltage Regulator Setting

This new HOYT Battery Condition Tester, No. 638, is a sensitive, accurate Voltmeter with a double Prod connected to the Meter by a self-coiling, rubber insulated wire. Doubly useful because of its versatility and convenient size, the Meter has an expanded scale with clearly defined color blocks for quick, easy reading. Gold color, permanent finish—Hoyt's 50th Anniversary Model!

Send for "Meters and Motors" . . . valuable, practical suggestions for testing all automotive electrical systems—only 50¢.



## BURTON-ROGERS CO.

Sole Selling Agents: Hoyt Electrical Instrument Works  
42 CARLETON STREET, CAMBRIDGE 42, MASS.

# SOLATONE

## ANTI-CARBON UNIT

**ELIMINATES CARBON  
IN THE ENGINE!  
REDUCES WEAR!  
IMPROVES COMBUSTION**



**Adds  
30,000  
more  
miles  
of life  
to your  
motor**

\$12.95

### HERE'S WHAT USERS SAY:

"...SOLATONE makes my car run as if it had a perpetual tune-up job.

Truck Bodies Distributor\*

"...SOLATONE is one of the most advanced and revolutionary methods of anti-carbon treatment and am happy to recommend it.

Electric Appliances Co.\*

"...I want to thank you for a remarkable product one which you can be truly proud. Travelling Salesman\*

\*Excerpts from letters in our files.



**SEND  
FOR FREE  
SOLATONE  
CATALOG!**

Exclusive Territories Open For Dealers

**A. B. HYDROCARBON SYSTEMS**  
2808 McKinney Ave. Dallas, Texas

# DRESS THOSE POINTS WITH RIMAC Flex-Stone



Made of the hardest abrasive materials pressed into a flexible core, Rimac Flexstone cuts Tungsten or Platinum Iridium easily—reaches hard-to-get-at corners readily.

Flexstone is a non-conductor. You can dress a commutator, motor running—without short circuiting.

Standard Flexstone for contact points; Extra Thin and Fine for voltage regulators and softer points.

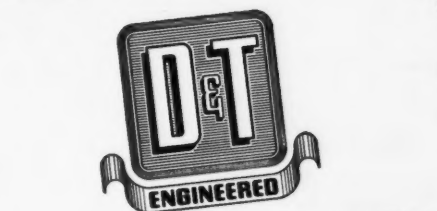


*Ask your jobber or write for literature.*

# RINCK-McILWAINE

## INC.

16 HUDSON STREET, NEW YORK 13, N. Y.



## WHEEL WEIGHTS



*"The Quality Line"*

A TYPE and SIZE for EVERY APPLICATION  
SEE YOUR JOBBER OR WRITE FOR CATALOG

**TURNER Manufacturing Co.**  
KOKOMO, INDIANA, U.S.A.



## This BUCKINGHAM THREAD RESTORER

**Can Save its Cost on  
the Very First Job**

Restores smashed, rusted, corroded threads . . . without removing damaged parts. No filing, no drilling, no hacksawing. Just turn the handle to adjust it to any diameter within its range . . . no blades to change, nothing else needed. Fits any pitch, right hand or left hand threads. Models for diameters up to 12".

• From your automotive parts dealer, or write:

Model 6103—Fits any pitch, right hand and left hand threads, for all diameters from 1/4" to 1". Nothing to add, no blades to change. Only \$6.50.

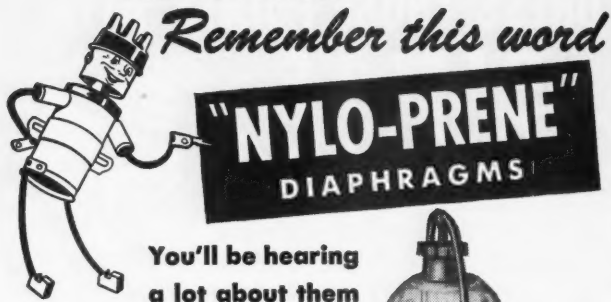
**SAVES Hours of Time  
SAVES \$\$\$ in Parts  
SAVES Hard Work  
ELIMINATES Costly  
Lay-Up Time**

**BUCKINGHAM MANUFACTURING CO., INC.**

702 TRAVIS AVENUE

BINGHAMTON, N. Y.

PEE DEE SAYS:

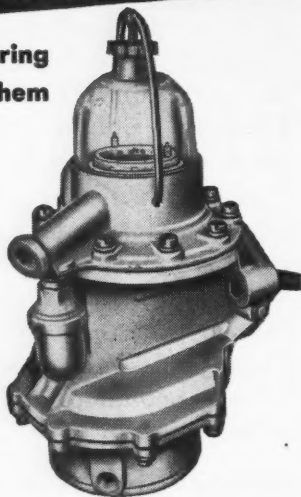


You'll be hearing a lot about them

The NYLO-PRENE Diaphragm is exclusive in all P&D Fuel Pumps and assures the driving public of the finest quality and performance ever offered.

P&D Fuel Pumps are manufactured in the most modern and finest equipped plant.

P&D Manufacturing Co., Inc. reputation for building only the highest quality products has been known throughout the Automotive Industry for over thirty-five years.



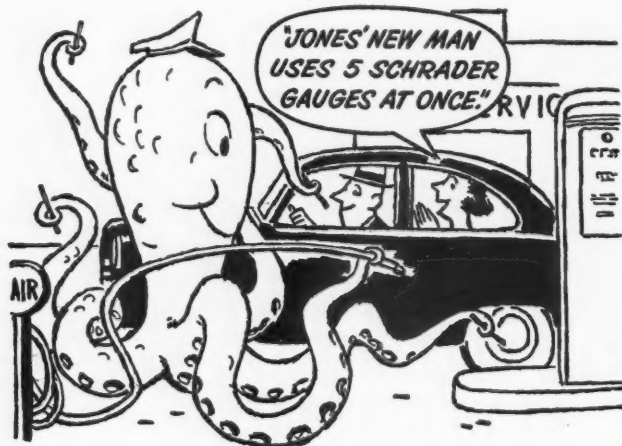
P&D Ignition Parts are your assurance of top quality—better performance—and satisfied customer acceptance.



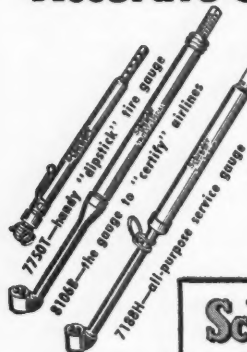
**MANUFACTURING CO., INC.**

Established 1920

19-02 Steinway St., Long Island City 5, N. Y.



**Accurate Schrader gauges bring 'em back!**



Whether you want a gauge to "certify" all your gauging-inflating equipment, or an all-purpose service gauge, or a handy pocket gauge—Schrader makes them all. Order from your supplier.

**Schrader**

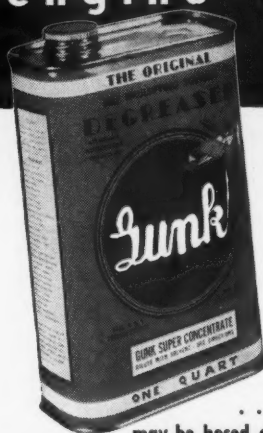
See our ad

on page 81

**A. SCHRADER'S SON, BROOKLYN 38, N. Y.**  
Division of Scovill Manufacturing Company, Incorporated

**DEGREASER!**  
engine shampoo

QT. SIZE CONCENTRATE  
MAKES 2 GALLONS



Takes cling out of oil and grease

... emulsifies it ... so that all dirt may be hosed off as easily as you rinse hands under water faucet. Launders engines faster, more completely, and safer than steam cleaning (warm the engine). Self scouring action brings out factory new appearance ... provides accurate visual inspection ... Gunked engines run cooler. Get Genuine Gunk in quart and larger sizes at better wholesale auto suppliers throughout the country ...

Flatly refuse imitations.

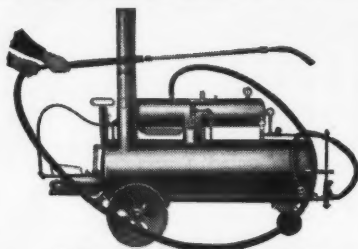
Extra strength, ready-to-use Gunk in pint containers is available from any of the Harley-Davidson Motorcycle Dealers everywhere.



**CURRAN CORP.**  
Mfg. Chemists  
LAWRENCE, MASS.

**Siebring**

PORTABLE  
STEAM CLEANER



**Cuts Cleaning Time in Half!**

The SIEBRING Portable Steam Cleaner saves time, labor costs! It provides instant steam, hot water or both. Knocks grease and grime from motors, machinery, parts in a hurry! Low cost; easy and safe to operate.

Write for Literature and Prices on this Money-maker ... Today. Dept. MA-2

**Siebring MFG. CO. GEORGE IOWA**

Classified Advertisement

Sales Representative Wanted. Soliciting orders for the remarkable Milesmaster Fuel Pressure Regulator on commission basis. Protected territory. Schneider Carburetor Co., 6218 Clayton Avenue, St. Louis 10, Mo.

**MOTOR AGE**

The Quality Magazine  
of the Automotive  
After-Market



The muffler that speaks for itself...

QUIETLY!



#### TAP AND TELL

You can always tell a Maremont Asbestos Wrapped Muffler — because it is stamped right on the shell. To show your customers the value of noise-deadening asbestos, place a muffler without asbestos wrap along side a Maremont Asbestos Wrapped Muffler. Tap each with a coin. Note the loud ring from the regular muffler — the soft thud from the Maremont Asbestos Wrapped.

Tap and tell will help you sell Maremont's extra "hush" performance.

## MAREMONT ASBESTOS WRAPPED...

### A muffler must for high compression engines

The exhaust system of high compression engines requires special muffler shell design to assure maximum quieting. Maremont has set the pace with its three and four ply asbestos wrapped mufflers.

Nothing compares with a sound-deadening asbestos-wrapped muffler shell when it comes to absorbing the harsh exhaust and vibration noises of high compression engines. And only Maremont fully protects the asbestos by covering it with a full length outer steel shell and then spinning the steel shells into a permanent interlock with the end caps. Yes, Maremont Asbestos Wrapped Mufflers—both rounds and ovals—*completely* seal the asbestos from water, gravel, road salt and slush.

Now available for certain models of *all* these cars: '53 and '54 Buick and Packard; '51-'54 Nash and Oldsmobile; '52-'54 DeSoto and Lincoln; '42-'54 Chrysler; and '50-54 Cadillac. Another example of why you give more value and get more satisfaction when you sell the leader in quality construction... Maremont.

# MAREMONT MUFFLERS

The right design... for every engine!  
MAREMONT AUTOMOTIVE PRODUCTS, INC. Chicago 8, Illinois



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# BOTH WAYS YOU WIN!

**Purolator shows you how to get ...  
Extra profits without extra work**

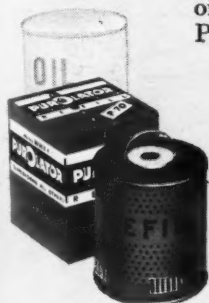
**THIS SUMMER ...** Purolator starts you off to bigger, better profits with 2-color ads in the Saturday Evening Post, Life, Look, Collier's, reminding motorists that car-makers are saying:

**"CHANGE YOUR OIL FILTER EVERY 5000 MILES"**

**Easy—Now—**to follow up ... **CASH IN** on the big summer travel boom ...

**1. Show every car-owner** what his Car-Owner's Manual says ... Sell him a new Purolator if his car is nearing 5000 miles ... Sell an oil-change too!

**2. Check every oil filter** with every oil-change ... Sell a new Purolator, too!



**Both ways—you win!**

Both ways you get 3 profits ... a profit on the oil filter ... plus a profit on the oil that takes the place of the quart thrown out with the dirty filter ... plus a profit on the oil-change.

**Stock Purolator ... TALK Purolator ... SELL Purolator!**

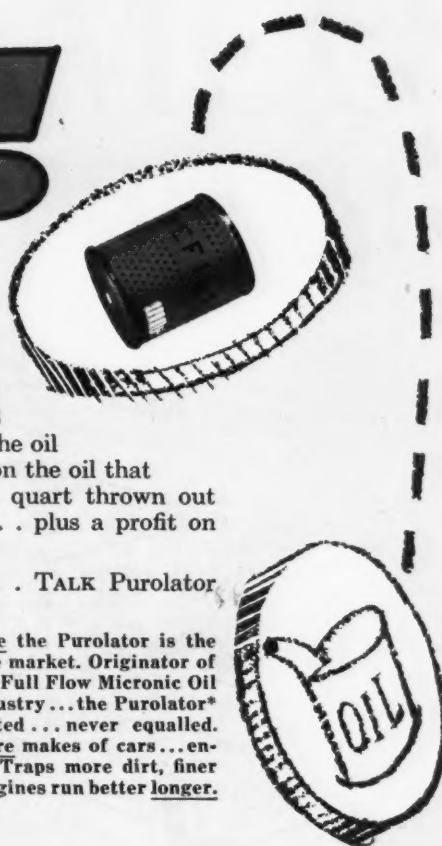
**SELL PUROLATOR...** Because the Purolator is the World's finest. First on the market. Originator of the Micronic® Filter... the Full Flow Micronic Oil Filter. Standard of the industry... the Purolator® Micronic is widely imitated... never equalled. Original equipment on more makes of cars... engineered to fit all makes. Traps more dirt, finer dirt faster... helps make engines run better longer.

## PurOlator

*World's finest* **OIL FILTER**

**PUROLATOR PRODUCTS INC.**  
Rahway, New Jersey and Toronto, Ontario, Canada

\*Reg. U. S. Pat. Off.







8 to 1  
you'll sell 'em!

Gambling? — not us. We know the facts. Surveys show that products with familiar brand names are preferred *eight times out of nine*. So just make sure which brands your customers want, and stock them. Makes sense, doesn't it?

Products with trusted brand names bring you many benefits: lower sales costs because they are so thoroughly pre-sold through their makers' powerful advertising and promotional material; fewer markdowns because of fast turnover; fewer adjustments because responsible manufacturers back up their products; best of all, lasting good will.

Yes, odds are 8 to 1 in your favor . . . and lots more's in your favor besides, when you stock the brands that sell the most.

\* \* \*

How do YOU push the brands that boost your business? Your method could win you national attention and local prestige in the Brand Name Retailer-of-the-Year competition. Write for details.

**BRAND NAMES FOUNDATION**  
INCORPORATED

A Non-Profit Educational Foundation  
37 West 57 Street, New York 19, N.Y.

FOR THE BUSINESS YOU WANT, PROMOTE THE BRANDS THEY WANT

"Man, this really shows me why I make Extra Money

with **RAMCO**

**EXTRA ENGINEERING!"**



"It's **EXTRA ENGINEERING** that makes Ramco Rings the truly All-Purpose Rings!"

"... and money-making ideas like this are also made possible by **EXTRA ENGINEERING!**"



Get a free copy of the RamCO-Operator from your Jobber! It contains plenty of proof you make extra money with Ramco Extra Engineering! You'll see that Ramco Extra Engineering is the result of extra years of specialization in replacement rings, backed by a 500-man Ramco-Thompson engineering and research team—the largest at the disposal of any ring manufacturer.

You'll read how Ramco Extra Engineering has developed the truly all-purpose Ramco

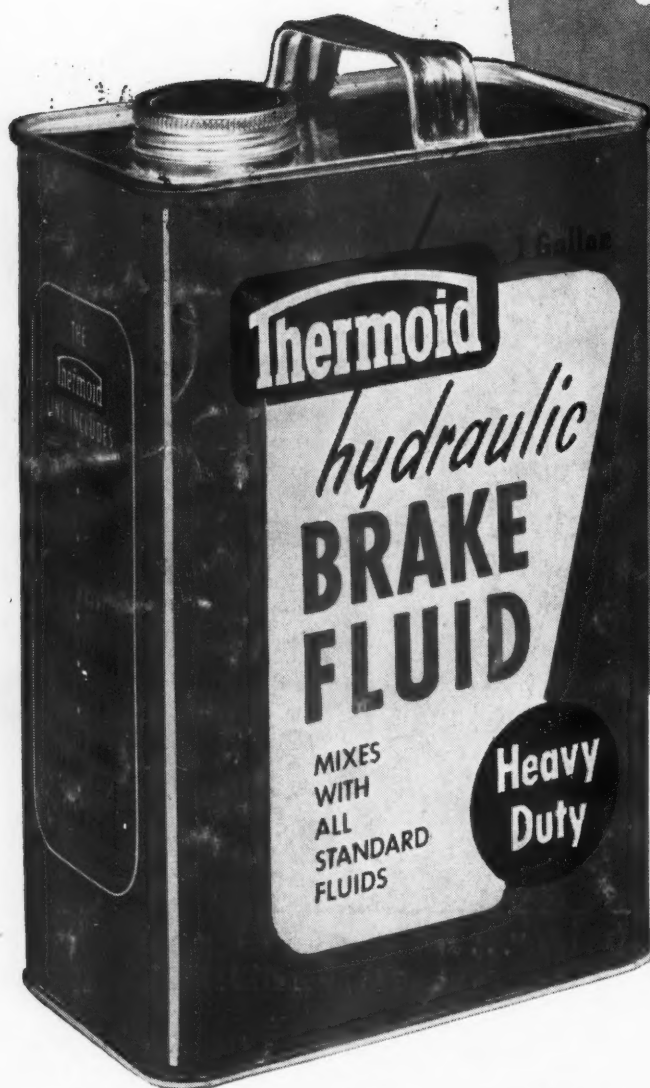
10-Up regular and chrome plated ring combinations. You'll find explained the reasons why Ramco 10-Up ring pressures automatically adjust themselves to the condition of the cylinder. No matter what the degree of wear, you can rely on getting the correct amount of pressure. Straight, slightly tapered, wavy or badly worn, Ramco Extra Engineering assures you of getting the right ring set for the job... that's Ramco Extra Engineering, another reason why you profit All-Ways with Ramco!

You Profit All-Ways with **RAMCO 10<sub>up</sub> Piston Rings**

...they're extra-engineered!



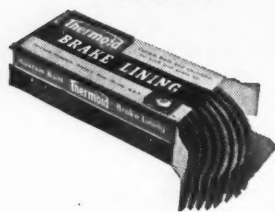
St. Louis 8, Missouri,  
A subsidiary of  
Thompson Products



**"Give  
your  
customers  
a good  
brake"**

31% of all fatal and 44% of all non-fatal automobile and truck accidents are caused by faulty brakes, according to the AAA.

Never compromise on brake fluid—the life blood of a safe brake system. Always use genuine Thermoid Hydraulic Brake Fluid. It meets all SAE specifications . . . operates dependably at 60° below or 300° above . . . is fortified with corrosion inhibitors to protect metal parts . . . will not swell rubber cups . . . mixes with all quality brake fluids. Order Thermoid Hydraulic Brake Fluid from your jobber.



Thermoid "Custom-Built" Brake Linings: the only linings approved by Pittsburgh Testing Laboratories. Custom-built for power brakes and automatic transmissions.



Thermoid's complete line of Hydraulic Brake Parts are precision engineered to the same industry-leading standards as Thermoid Brake Linings.



**Thermoid Company • Trenton, New Jersey**

the standard of precision processing in brake lining, brake blocks, hydraulic fluid, cylinder assemblies, hydraulic brake parts.